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A DESCRIPTION OF THE PHONEMES AND POSITION CLASSES IN THE MORPHOLOGY OF HEAD OF THE LAKE OKANAGAN (SALISH)

by

©

DONALD WATKINS B.Ed., M.A.

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled A DESCRIPTION OF THE PHONEMES AND POSITION CLASSES IN THE MORPHOLOGY OF HEAD OF THE LAKE OKANAGAN (SALISH) submitted by Donald Watkins in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

ABSTRACT

This thesis sets out to describe the phonemes of Head of the Lake Okanagan Salish, an Indian Language spoken in the Interior of Canada's British Columbia. It also describes Okanagan morphology in terms of morpheme classes and the morphemes that make up these classes, attention being focused on surface structure. The morphological description is formulated within an item and process model, the discussion centering on data collected by the writer during the summers of 1967-9.

As an introduction (Chapter One), the state of Okanagan research is examined; and the work of various writers on Okanagan during the last 100 years is summarized. In the same chapter a delimitation is set upon the approach to be used in subsequent chapters of the thesis. The phonemes of Okanagan are presented first (Chapter Two), along with their allophones and a description of the automatic pepet vowel. Then the twelve morpheme classes are described (Chapter Three). The constituent morphemes are listed, and their functions discussed. A set of utterances illustrating each morpheme follows the presentation of each morpheme class. In the last chapter (Chapter Four) the morphophonemic rules are introduced. The complex topic of stress location is discussed, which requires every morpheme to be assigned to a specific stress class.

Paradigmatic material is located in the Appendix, which also lists morpheme constituents of the various morpheme classes, including the stem.

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CHAPTER ONE

INTRODUCTION

Linguistic and Geographic Environment of Okanagan

Okanagan is a Salishan language,[1] spoken today in the southern Interior of Canada's British Columbia and in the northern part of the American state of Washington. Salishan is a linguistic entity geographically located at the present day in isolated enclaves along the northwest Pacific coast and the interior areas of the Rocky Mountain Range. Before Western European settlement induced these concentrations, Salishan speakers are believed[2] to have occupied almost exclusively the territory from the Pacific coast in the west to the Yellowstone and Missouri Rivers in the east, from Rivers Inlet, British Columbia, in the north to an area beyond the Columbia River on the coast of present-day Oregon in the south.

Bordering the Salishan area are the Chimakuan and Wakashan stocks, composed respectively of Chemakum and Quileute in the former and Nootkan and Kwakiutl in the latter, which lie northwest.

To the north is Athabaskan, represented by Chilcotin, Carrier, Sekani, Beaver, and Sarcee, while to the east lie Kutenai and the Blackfoot branch of the broad Algonquian stock. Crow and Assiniboin, Siouan languages, are located to the southeast together with Shoshoni and Bannock, two Shoshonean languages. Directly south of the Salishan area are found the Chinookan and Sahaptian stocks, the latter

being composed of Nez Perce, Sahaptian and Cayuse. A distinct status extending over 5,000 years has been posited for Salishan.[3] If this is the case, any systematic relationship between Salishan and neighboring stocks will be exceedingly difficult to demonstrate.

Present-day Salishan comprises more than 20 mutually unintelligible languages, some of which have important dialectal varieties. They fall into four main groups: Bella Coola, Coast Division, Oregon Division, and Interior Division, all except the first having internal ramifications.[4] The Interior Division is made up of Lillooet, the Thompson Group (Thompson, Shuswap), the Okanagan Group (Okanagan-Colville-Sanpoil-Lake and Spokane-Kalispel-Pend d'Oreille), Columbia and Coeur d'Alene. Etymologically, k-dialects and č-dialects have been established,[5] each division extending over both Coast and Interior languages. K-dialects are Bella Coola and the Interior Division languages: Lillooet, Thompson Group, and Okanagan-Colville-Sanpoil-Lake. The remaining languages are č-dialects, i.e. Interior Division Spokane-Kalispel-Pend d'Oreille and Coeur d'Alene, together with the languages of the Coast and Oregon Divisions.

Total Salishan population has been estimated at 59,000 in 1780, of which 25,500 were Interior Salish and 2,200 were Okanagans.[6] Disease and other influences accompanying European trade and colonization adversely affected these figures.[7] Recovery came only well into the present century. Speakers of Okanagan today number about 1500, almost equally divided into Northern and Southern Okanagan, politically divided by the International Canada-United States border.[8] In population terms, the Okanagans are increasing; but linguistically

they are slowly becoming English monoglots. My estimation is that within two decades Okanagans of child-rearing age will no longer be teaching their offspring their traditional language. Linguistic obliteration will be the inevitable result.

The Okanagan dialects are spoken today in the Okanagan and Similkameen Valleys and Douglas Lake areas of British Columbia and along the banks of the Okanogan River south of the forty-ninth parallel to the junction with the Columbia River. Politically, the speakers in Canada are divided into the Similkameens and Okanagans, the former with three and the latter with four bands divided into constituent villages.[9] Most of the linguistic data presented in the following chapters were gathered from the Okanagan Komaplix Band (Head of the Lake Band) located at the head of Okanagan Lake some eight miles northwest of present-day Vernon. Informants were Chief Ernest Brewer (born about 1895), Mr Louie Lewis (born about 1895), Mr Tommy Gregory (born about 1903), Mr Joe Abel (born about 1898), Mrs Mary Abel (born about 1914). Some material was also obtained from Mr Larry Pierre Timoykin (born in 1924) and Mr George Lezard (born about 1886), members of the Okanagan Penticton Band. All these informants make regular use of their language in their everyday affairs. With the exception of Mr George Lezard, all are Okanagan-English bilinguals.

State of Okanagan Research

In the last half century there has been virtually no systematic research into the Okanagan language. Most of the published data on

Okanagan appeared prior to this time. Notable investigators were William Tolmie (c1877), George Gibbs (1877), Franz Boas (1890, 1927), Father Jean-Marie Le Jeune (1897-1925), and Charles Hill Tout (1911).[10]

WILLIAM TOLMIE

While in the employment of the Hudson Bay Company, Dr William F. Tolmie compiled a word list of Wā-ky-nă-kaine, a tribe of the Selish Family. A representative sampling of his recordings forms part of Figure 1, page 6 , which is a collation of Okanagan terms assembled by different investigators at varying times.

Inspection of Tolmie's list in juxtaposition with those of other workers prompts the following conclusions.

1. Tolmie's lexicon bears a general resemblance to Interior Salishan, but whether or not it is Okanagan is open to doubt. Numbers one to six are roughly parallel, if we can assume that Tolmie's list carries occasional morphemes that are redundant to the numerical meaning. Numbers seven, eight, and nine bear no resemblance to the Head of the Lake equivalents, and must be considered foreign.
2. Assuming that numbers one to six, and ten are more frequently used than numbers seven, eight and nine, we could conclude that Tolmie's informant had only a casual knowledge of Okanagan and was not a native speaker. Tolmie gives no hint of the exact geographic location where he gathered his data. He may well have been interrogating a guide or interpreter who knew Okanagan as a result of his vocation rather than as a result of his birthright.
3. Tolmie's phonetic perception is open to suspicion. Besides

being inconsistent in his application of symbol to sound, he failed also to note a difference between velar and uvular stops, and glottalized and nonglottalized apical stops. He ignored glottal stops in 'six' and 'nine', and failed to mark stress.

William Tolmie's word list is valuable in the respect that it constitutes one of the earliest published examples of Okanagan. But it is of little use in the present (synchronic) study since it lists forms which are widely divergent from those used by presentday informants.

GEORGE GIBBS

Gibb's Okanagan material consists of a word list contained in a study of Comparative Salishan. He obtained the words from an Indian of the Shemel-a-ko-much band living near the forks of the river below the lakes. Gibbs adds the caution that the language probably varied considerably towards the head of the great lake. A representative sampling from the collection of close to 200 words appears in Figure 1, page 6. In this list the Head of the Lake terms are expressed phonemically.

Inspection of Gibbs's list reveals a much greater similarity to Head of the Lake Okanagan than Tolmie's list shows, in spite of his caution. Correspondence is greater in matters of consonants and stress; but once again velar and uvular stops are not differentiated, nor are glottalized and unglottalized apicals. This statement applies equally to the remainder of the Gibbs word list. Vowel representation is the greatest weakness in this lexicon. It is impossible to distinguish automatic vowels from significant vowels. The following symbols

ENGLISH	WĀ-KY-NĂ-KAINE (Tolmie)	SHEM̆EL-A-KO-MUCH (Gibbs)	OKANÁK·ĒN (Boas)	OKANÁK·ĒN (Hill Tout)	HEAD OF THE LAKE OKANAGAN (Watkins)
one	nuk-oapsh	naks	nak·s	nuks	naqs
two	sisalla	es-síl	acī́l	acī́l	asél
three	kilthash	ka-tlís	kā́tlēc	kathicH	kaɬés
four	suhmoast	mōs	mōs	mōs	mos
five	uscheeliks	ché-likst	tcīlkHst	tciliikst	celkst
six	tukumuxt	ta-hu̲m-ú̲kst	t'ā́k·EmkHst	tak·um'kst	t'aq'mkst
seven	choo-chil-ka	sis-pil-lik	sī́spilk'	cic'p'lk	sesplk'
eight	uncoapigh	té-mikhl	tī́mitl	tEmtl	temɬ
nine	timilthliu-kooqua	hukh-hun-nōt	q̱EqEn'ṓt	Huqunṓt	xxnot
ten	ush-oopukts	ópen-ikst	ṓpenkHst	ṓpEnikst	opnkst
I	uncha-chowa	in-chá	Entā́kEn	īntça	énca
thou	unnawi	a̲-no-wékh	hānuḗ	ā́nūi	ánwe
he	unnawiish	ya-hḗs	tcinī́tl	tcinitl	cneɬc
we		ma-mām'l-tu̲t́	mnḗmltit	mEnēmtltit	mnemɬtt
ye		ma-nēm-i-hlu̲mp	mnṓmtlEm	mEnēmtlimp	mnemɬmp
they		chin-kōs-tlikh	mnḗmtciliq̱	mEnēmtltcilEq	mnemɬclx
tooth		in-ai-tum-in	aaítEmEn	aítEmEn	ᶜaytmn

Figure 1. Representative Samples from Five Okanagan Lexical Studies

appear: ī, i, e, a, u̲, â, ā, ō, u, ū. We have no indication of their phonetic value, beyond a rough comparison with English. With such limited data and unexplained symbols, we feel it would be unwise to attempt a phonological analysis.

The Gibbs word list appears to have been carefully compiled and serves as an interesting comparison for Head of the Lake data.

FRANZ BOAS

The Boas material on Okanagan consists of a word list, constituting part of a greater comparative list. He also presents a phonological discussion, which is part of a comparative soundshift study, and a brief morphological presentation.

In his word list, Boas translates some 182 English words into Okanagan, the terms in Figure 1 being a brief sampling. Boas does not identify the Okanagan dialect described other than saying it is Canadian. We therefore assume that it belongs in the immediate area of Okanagan Lake. Examination of the phonetics shows that Boas distinguished the velar and uvular stops consistently, but was not so consistent in his representation of glottalization. In the case of 'thou', for example, Boas confused the disjunctive pronoun and the prefix pronoun, presenting the latter as the former. The vowel phones are quite consistent and would permit the establishment of phonemes. Boas shows two front vowels, each with and without length, two back vowels, with and without length and a low vowel, again with and without length. Capital E represents an obscure vowel of varying quality, determined by consonant environment. These phones could be grouped into the following categories. Automatic vowels: i and E. The

remaining phones then constitute the three vowel phonemes located front, low and back. Presumably, this is what Swadesh did in 1952.[11]

Boas experienced difficulty locating and recognizing the barred-l phone. It occurs in each of the plural pronouns and each time is represented differently in Boas's phonetics. In common with his contemporary investigators, Boas also failed to notice any pharyngeal consonants as demonstrated by the item 'tooth'.

The Okanagan data contained in Boas's study on sound shifts is drawn from his 1890 data and in some instances combined with that of Hill Tout discussed below. One can assume that this later presented material was considered by Boas to be most reliable. So it is. His major problem in 1927 in establishing sound shifts seems to originate in the fact that he was using unphonemicized data culled from various sources.[12]

Boas himself acknowledges a degree of unreliability in his 1890 data when he lists some sixty-four transcription corrections in addition to one symbol variant which extends over six pages, and comments that he was prevented from making a proper reading of proofs.[13]

In his 1890 article Boas gives a brief glimpse of Okanagan morphology. Although the data cover only one page, the following features become apparent.

1. The Okanagan noun and verb have reduplicated morphemes.
2. Nominal affixes are common in the language.
3. The possessive affix varies in the first and second persons singular according to the initial segment of the accompanying noun.

4. The numeral has forms which vary, depending on whether persons or things are being enumerated.

Not all these features are specifically pointed to by Boas. However examination of a larger corpus immediately confirms their presence.

FATHER JEAN-MARIE R. LE JEUNE

In any discussion of Indian education in British Columbia's Interior probably the best known name is that of Father Le Jeune (1855-1930).[14] For over half a century this French-born priest and classical scholar laboured to bring Christianity and education to his widely scattered parishioners.

Primarily concerned with spreading the gospel Father Le Jeune undertook the task of reducing some twelve Indian languages to writing. He used a modified version of the Duployan shorthand system, invented by Father Emile Duployé (1833-1912),[15] and taught this writing system to the Indians both through personal contact and through the monthly 'Kamloops Wawa' publications. His death in 1930 brought the literacy movement to an end.

Phonology

Le Jeune modified Duployé's syllabary to establish symbols for the sounds p, t, f, k, l, j, s, n, m, b, d, v, g, r, č, c and ŋ, together with symbols representing what were called 'kh gutteral, kl sibilant, h and l separate, h and l fused, lh wet, kr explosive, soft r, soft hr, wet t, and double s'.[16] This was his total consonantal inventory, not all of which was used for Okanagan. In transcription, Le Jeune confused velar and uvular stops, and ignored

pharyngeal consonants and glottalization. Worst of all he virtually ignored vowels; this being a consequence of the Duployan shorthand system. While he had twenty different symbols to express various syllabic environments, nasal syllables included, his system permitted both the use of one symbol to express two front vowel sounds, and the total omission of a specific vowel in certain environments, i.e. between two homographic symbols. Some of the success of the system must surely have depended on the fact that most of Le Jeune's readers already spoke fluently the language they were trying to read. The recognition of an initial consonant grouping often sufficed to trigger pronunciation of the whole word, since much of the subject matter of many of Le Jeune's publications was partially memorized prayers and hymns.

The shortcomings of Le Jeune's writing system are summarized as follows.

1. As a means of translating speech of normal speed into writing, the system must perforce be founded on a selection procedure. Some sounds are selected for recording, others are ignored. Such an approach does not result in accurate phonetic transcriptions.
2. While the system has a phonetic orientation, the structural unit is now the syllable, now the morpheme. Consequently the inventory of symbols tends to be large, unwieldy, overlapping, and difficult to remember. It fails to distinguish automatic vowels from significant ones.
3. Stress in French is nonphonemic and not present in the Duployan system. In Okanagan stress is phonemic.

4. One symbol in Duployan shorthand often represents more than one syllable. The reader is specifically referred to general context for solution of ambiguities in reading a transcribed text.[17] Illustrative of the ambiguities and superfluities are the following.

a. The syllables apere or opere can be represented by a diacritic theta, and afere or ofere can be represented by a full-size theta.[18]

b. Syllables te and tye are represented by one given symbol in one environment and by one different symbol in a different environment.[19]

c. One symbol represents the syllables ta, twa, to, tu after the symbol for ne, while a different symbol represents them elsewhere.[20]

d. Similarly, the symbol for ti varies depending on whether or not it follows the syllable se.[21]

e. One symbol alone represents a, wa, oya.[22]

f. One symbol alone represents ao, aw, o.[23]

g. The presence of two homographic symbols surrounding a vowel symbol is sufficient to suppress the recording of that vowel symbol.[24]

h. The use of abbreviations is obligatory.[25]

Morphology

Le Jeune approached the question of Salish morphology as though it were an offshoot of classical morphology. Verbs were presented in paradigm form,[26] mostly in Duployan script, and classified on the basis of tense and mood differences.[27] Thus the typical discussion of the verb morphology contains a listing of conjugations each with a subgrouping into active and passive, divided into indicative and subjunctive followed by subgroups entitled Present, Perfect, Future,[28]

Noun presentation also received a classical treatment from Le Jeune, but in a different sense. Noun units are introduced as they are in The Key to the Garden of the Greek Roots.[29] They have neither an alphabetic grouping nor a morphemic one, but are ordered on the basis of the appearance of their Greek equivalents in the Old Testament, starting with the Book of Genesis. Since they are mostly transcribed in Duployan shorthand, morpheme boundaries are lost.

A morphological analysis of Le Jeune's Okanagan is rendered virtually impossible by the nature of the shorthand script used, combined with a misleading presentation of data.

The work of Le Jeune in British Columbia's Interior is an interesting phenomenon in the history of the Church in Western Canada. It has no great place in the history of Canadian linguistics.

CHARLES HILL TOUT

Hill Tout's linguistic material on Okanagan consists of a short word list of numerals and kinship terms together with a brief morphological presentation.

Throughout the study Hill Tout ignores glottalization, a frequent and characteristic feature of Okanagan. He also fails to note any distinction between velar and uvular stops. In a paradigm designed to illustrate the possessive pronoun, he consistently symbolizes 'hat' as kwatchkim, a term which informants today express as /q^{w}acqn/. Since he chose this term as a stem in an illustrative paradigm we may assume that Hill Tout was confident of the phonetic fidelity of this particular word. Nowhere in his data does he show evidence of

having heard voiced velar and pharyngeal continuants, or any of the variants of the phonemes ƛ, ƛ', and r. When he failed to isolate in Okanagan two features that Mengarini found in Flathead, a different language, Hill Tout blamed his own insensitive ear.[30]

The morphological discussion roughly parallels that of Boas above with respect to content. But on the point of clarity and consistency Hill Tout is noticeably inferior to Boas. Hill Tout makes the following points.

1. The numeral carries a personal affix when persons are being counted.
2. Numerals sometimes carry suffixes having nominal reference.
3. Okanagan has both independent and dependent pronouns.
4. The 1st and 2nd person possessive adjectives each have two principal allomorphs varying with the initial segment of the accompanying noun.

The remaining morphological discussion is more misleading than it is helpful. For example two verbal paradigms aimed at illustrating pronoun subject and object permutations frequently fail to show the pronoun morphemes in question. In a juxtapositioning of Okanagan utterances which correspond to English sentences with tense transpositions, Hill Tout presents utterances containing internal differences, suggesting that such differences account for the tense change: Hēwa kEn' sEtcā̆imt 'I was angry'; tcim kEn āimt 'I shall be angry'. The time change, in fact, is signaled in each case by the syntactic element that precedes the verb. The concept of tense is poorly developed in Okanagan morphology. And any attempt to conjugate a verb and show elaborate tense changes would have little success.

MORRIS SWADESH

In 1952 Morris Swadesh produced a list of Okanagan phonemes using Boas's data.[31] They may be illustrated as follows.

Occlusives	p	t	ƛ	[c]	k	kʷ	q	qʷ	
Glottalized	p'	t'	ƛ'	[c']	k'	kʷ'	q'	qʷ'	
Spirants			ɬ	s	x	xʷ	χ	χʷ	(h)
Nasals	m	n							
Glottalized	(m')	(n')							
Continuants	w	r	l		y				
Glottalized	(w')	(r')	(l')		(y')				
Vowels	u				i				a

The bracketed phonemes are considered rare and of doubtful phonemic status.

Aware that Okanagan is a k-language rather than a ch-language, Swadesh made the erroneous assumption that Okanagan k and ch were variants of a single phoneme and could not be contrasted.[32] A more accurate view is that ch and ts are variants of a single phoneme, which we symbolize as c. Contrasts between c and k do exist. For example, c- can represent a prefix denoting 'durative', while k- can represent a different prefix denoting 'movement to or location at a specific place'.

Swadesh hesitated in according phonemic status to voiced glottalized consonants because of their rare occurrence. We cannot agree that such consonants are rare. But we do refrain from granting them phonemic status. In the Head of the Lake dialect, each voiced consonant phoneme has a variant with glottalization, the occurrence

of which is predictable. Consequently, we consider m and m', for example, to be variants of a single phoneme m.

Historical relationship is a matter under consideration in the Swadesh article. Under such a consideration, holes[33] in a system often bear a significant role. Swadesh's phoneme chart includes blanks having little significance, and other spaces which might be regarded as holes. A rearrangement of his phonemes into four series along the lines that we present under our Phonology would probably result in a chart with spaces having considerably more historical significance than those in Swadesh's chart presented above.[34]

The value of Swadesh's article lies in the fact that this is the first published attempt to present an inventory of Okanagan phonemes. Further investigation might show that differences between Swadesh's inventory and our inventory can be accounted for on the basis of dialectal variation.

M. DALE KINKADE

In recent years a discussion has grown up around the existence and nature of certain Interior Salish fricatives produced in the faucal region of the oral cavity. Reichard found two in Coeur d' Alene which she symbolized as R (surd) and r^w (labialized). Hans Vogt compared Coeur d'Alene with Kalispel,[35] and found the latter to be lacking in faucal continuants. On this basis he re-evaluated Reichard's faucals as voiced correlates to x and x^w,[36] making them velars or uvulars.

Reichard rejected Vogt's interpretation and revised her description of R: 'The apex of the tongue is drawn down and back and the uvular is strongly vibrated'.[37] It is voiced rather than voiceless; r^{W} is the labialized equivalent.

Kinkade found pharyngeals in Columbian, Methow, Colville, and South Okanagan, the last three being Okanagan dialects, and received supporting information that they were also present in Lillooet and Thompson. This additional evidence together with some new Coeur d'Alene data constrained him to support Reichard's assertion that faucals or pharyngeals were present in Coeur d'Alene.

Kinkade proposed four pharyngeals for Okanagan ʕ, ʕ', ʕ^{W}, and ʕ^{W}', terming them 'approximately phonemic', and describing them as 'nearly always voiced', 'lightly pharyngealized', and 'difficult to hear at all'.[38] The description fits the pharyngeal values in Head of the Lake Okanagan, but the latter dialect lacks the labialized forms. Glottalization of voiced continuants is a variant phenomenon in Northern Okanagan. Thus glottalized pharyngeals are present, but only at the subphonemic level.

The studies of Okanagan phonology and morphology described above all have in common the fact that they occur either in the environment of a general Salishan discussion or in a larger ethnographic consideration. Consequently the details necessary for an understanding of the total Okanagan system are always lacking. It is hoped that the lacking evidence will be partly supplied in the chapters below.

Statement of Aim

This thesis is concerned with presenting a description of the phonemes of Okanagan, their allophones, and their distribution, as established from a set of newly collected data from the head of Okanagan Lake. Further, it describes Okanagan morphology in terms of position classes and the individual morphemes that make up these classes. Attention is focused on surface structure.

Procedures

In the Morphology we group morphemes into morpheme classes. This procedure was briefly adopted in two well-known studies of Interior Salishan languages, Gladys Reichard's Coeur d'Alene, and Hans Vogt's Kalispel.[39] Some years later, Zellig Harris, in Structural Linguistics,[40] examined the question of morpheme position classes, and discussed a methodology for their establishment. The purpose in setting up such classes is 'to reduce the number of elements, in preparation for a compact statement of the composition of utterances'.[41] We use the concept of the morpheme class to describe the relative position of morphemes in an utterance in such a way as to avoid repetition of almost identical distributional statements for numerous individual morphemes. The composition of the utterance can then be described in terms of these classes, rather than in terms of separate morphemes.

Within a limited corpus it is not possible to establish groups of morphemes made up entirely of forms having exactly the same total environments. We consequently use a procedure whereby morphemes are grouped on the basis of similarity of environment, described as follows.

We note that a number of pronoun suffixes appear either finally in an utterance, or before -lx '3 person pluralizer'. Such a suffix is -tex^{W} 'thou'. We also notice that in all of its occurrences, -tex^{W} follows -n 'completive aspect', or -st 'customary aspect'. The morpheme -tep 'ye' has this same distribution. On this distributional basis we establish a morpheme class and call it Pronoun. Other morphemes with the same distribution are assigned to it.

Treating the pronoun class as a unit, we then list those morphemes in the data that appear in no position other than immediately before the pronoun class, or finally, when the pronoun class is not represented in an utterance. The morphemes -n 'completive aspect' and -st 'customary aspect' are brought together into another morpheme class which we call Verbalizer.

Returning to the pronoun suffixes, we find that -cé 'thee' always follows -n 'completive aspect' but never follows -st 'customary aspect'. We assign it to the pronoun class, and note that unlike all other members of this class so far assigned, it follows only -n 'completive aspect'.

Continuing this procedure, we assign morphemes to classes, establishing additional classes progressively, until every morpheme has been assigned to a specific class. The classes, twelve in all, are numbered to indicate their position relative to each other in an utterance. Each class is given a name, as a mnemonic device, and also to suggest that certain semantic features characterize the members of that class.

The rigour lost in this grouping procedure is outbalanced by the reduced number of distributional statements required for individual morphemes. For example, we list in the Appendix a class of ninety morphemes that we call Nominal-Locative suffixes, a class of five morphemes that we call Verbalizers, and a class of twenty-three morphemes that we call Pronouns. By numbering the three groups 10, 11, and 12 respectively, we are then able to make statements like the following.

1. The only morphemes that follow Class 10 morphemes belong to Classes 11 and 12.
2. Class 10 morphemes never follow Class 11 morphemes.
3. The only morpheme that appears between the last Class 10 morpheme and the first Class 12 morpheme in an utterance is a Class 11 morpheme.

Similar distributional statements can be made without recourse to morpheme classes, but to be of equal generality, they would be vastly more cumbersome.

The establishment of morpheme position classes is in part dependent upon the significance of morpheme sequence. Without the rigid morpheme ordering observable in successive utterances, the maintenance of morpheme classes would be impossible. But besides reducing the number of distributional statements required for individual morphemes, a morphological presentation made in terms of position classes also prepares the way for syntactic description.

Examination of the data leads to the establishment of ten basic syntactic patterns. From these patterns, a number of subpatterns are constructed. The position classes posited for morpheme

description can be adapted to produce syntactic units, the interrelations among which constitute nouns and verbs.

One of the basic patterns is

Pronoun + Aspect + Verb Stem + Tense

In the Verb Stem we find morphemes called Roots in the Morphology, which appear in no other syntactic unit except Noun Stem. The pattern above is exemplified in kn-sc-kec-x 'I am coming' (I - continuative aspect - come - non-future). The presence of an emphatic prefix like ke- 'indeed', does not result in a different basic pattern, but merely a different subpattern: keknsckécx 'I certainly am coming'.

The ten syntactic patterns account in general terms for the construction of every utterance in the data. Inspection of these patterns, however, gives no indication of which combinations of morphemes are specifically attested to. Clearly many combinations of individual morphemes cannot be materially exhibited; and in this respect, the statements go beyond the data. They stop short, however, of the suggestion that they can be used for the generation of new utterances.

It is noted that there are fewer basic syntactic units than there are morphological units. This is because we sometimes combine two morphological units into a single syntactic unit. For example, in the Morphology we establish a group of pronoun prefixes and a group of pronoun suffixes. In the syntactic statements we combine morphemes from both groups into a single affixal unit, and introduce a transformation rule which is applied to those pronouns which are suffixes, moving them from a prefix position to a suffix position located at

the end of the utterance. In other cases, we ignore morphological units like the proclitic and the adverb in the basic syntactic patterns. These units are more suitably dealt with in the subpatterns.

Co-occurrence is mentioned when there is sufficient evidence to permit such statement. Inflectional affixes occur with great frequency and can be treated with little difficulty in the presentation of the syntactic patterns. The aspect marker, for example, is such an affix, and is included in the pattern statement illustrated above. Co-occurrence among derivational affixes is briefly treated in the Morphology in cases of frequently appearing morphemes. However, because of the large number of affixes in question, the infrequent occurrence of some of them, and the vast number of possible combinations, it is often difficult to make any concise statement of co-occurrence with many of these morphemes. But when a pattern of co-occurrence is apparent, it is described.

The syntactic presentation is necessarily abbreviated, since Okanagan morphemes are reckoned in the hundreds, and since a formidable complexity of morpheme combination is observed within utterances. With Okanagan research still in its initial stage, we believe a concentration upon morphology to be a more prudent procedure.

The Model

Our principal interest is the description of a given language. The model chosen for this description is one generally known as Item and Process (IP). This approach has been compared with Item and Arrangement (IA). But while this latter model is susceptible of reasonably

clear and coherent statement,[42] its use with Okanagan leads to a number of difficulties which are not present in an IP approach. Rather than presenting an overall evaluation of the two models,[43] we consider instead a number of instances where IA and IP appear to conflict, and where the latter approach offers a more acceptable procedure.

To avoid an aura of diachrony in a synchronic study, some proponents of IA adopted the tenet that 'there is no hierarchy among the morphemes in a word as between stem and inflection affix; they simply co-exist'.[44] This point of view is difficult to maintain in Okanagan where numerous utterances consist of stem and affixes, e.g. s-tom-x̣n 'toe'. While the stem can exist independently (tom 'suck' appears dependently in stomkst 'thumb', and independently in tom 'woman's mother'), the presence of the affixes s- 'nominalizer', -x̣n 'foot', and -ks 'hand' presume the presence of a stem. They never occur alone. Our use of the IP model obviates the need for justifying equal hierarchical status between stem and affix.

The rejection of one kind of hierarchy by IA implies the rejection of another, e.g. that which is observed with discontinuous allomorphs. It becomes possible to designate two separate phonemes or phoneme sequences as a discontinuous allomorph of one morpheme when the morpheme in question occurs elsewhere as a continuous sequence. Such a designation implies a derivation or 'process'[45] from a continuous to a discontinuous state. Discontinuous allomorphs are common in Okanagan stems, for example:

t'ol 'it changed : t'ool 'it is improving'

q'oc 'he is fat' : q'ooc 'he is getting fat'

In these examples, t'ol signifies 'change' and q'oc signifies 'fat'. Reduplication of the vowel in t'ool and q'ooc indicates the presence of an additional morpheme signifying 'incomplete process'. Whichever vowel we designate as the process morpheme, that which remains is a discontinuous allomorph of the root morpheme. The positing of discontinuous allomorphs would seem to violate the IA hierarchical principle; but in addition, when we attempt to identify precisely the morpheme signifying 'incomplete process', a further difficulty arises. IA procedure requires that every morpheme be phonemically constituted and have sharp borders.[46] It thus becomes necessary to segment t'ool as /t'ó + (ó) + l/ or /t' + (ó) + ól/, the bracketed vowel being the 'incomplete process' allomorph. We have no means of deciding where the segmentation is to be made. An alternative analysis can be made by analogy with Bloch's proposed description of the English word ' 'sang'.[47] Here the morpheme {siŋ} has the alternants /siŋ/ and /sæŋ/. When used with the past tense, {siŋ} is realized as /sæŋ/ + ∅, where past tense is represented by a zero allomorph. The meaning difference between sing and sang is thus assigned to a covert element, justification for the analysis being that 'vowel change, a process, is not a morpheme'.[48] The application of Bloch's procedure to Okanagan t'ool 'it is improving' would result in the following. {t'ol} 'change' has the allomorphs /t'ól/ and /t'óól/, the latter being realized when {t'ol} is used with the 'incomplete process' morpheme. This last morpheme would be treated as zero; and the overt distinction between /t'ól/ and /t'óól/ would be treated as meaningless. A covert distinction becomes the meaning carrier. Furthermore, this zero morpheme is always zero, and never phonologically present. Thus we have

a morpheme without phonemes, which violates Bloch's rule that 'no morpheme has zero as its only alternant'.[49]

By following IP procedures, we are not troubled by the presence of discontinuous allomorphs, nor are we required to locate definitively all morpheme boundaries. Consequently our examples can be described as follows:

t'ol + incomplete process ---> /t'óól/ 'it is improving'

qʻoc + incomplete process ---> /q'óóc/ 'he is getting fat'.

In the area of morphophonemics, IA gives rise to problems that are not present in IP procedures. Again, the question of hierarchy appears. Use of morphophonemes or base forms from which allomorphs are derived has no theoretical justification within IA;[50] although such devices have been resorted to.[51] In our present description we make use of the base form to describe morpheme variation. The device is a useful means for indicating morpheme unity. For example, Okanagan has a number of chameleon morphemes, the phonemic shape of which is dependent upon the shape of an accompanying morpheme. The 'diminutive' morpheme is such a case; it is marked by the reduplication of the initial phoneme of the accompanying stem.

pomén 'drum'	ppomén 'little drum'
tmhólawx 'land'	ttmhólawx 'small piece of land'
ʕax 'it is furrowed'	ʕʕax 'it has tiny furrows'

There is no single phoneme that is consistently associated with diminution; and if we had no recourse to a single (theoretical) base form under which to subsume all the allomorphs of this morpheme, we would be left with a series of seemingly independent forms all denoting

diminution, and yet all being in complementary distribution one with another. By resorting to base forms, we have a consistent frame of reference for each chameleon morpheme together with a reduced total inventory of such morphemes. Further discussion of the base form can be found in the introduction to the Morphophonemics, Chapter Four.

Use of zero allomorphs is a matter for consideration in morphophonemics. In some cases we establish such allomorphs, as, for example, in the case of the suffix -n 'completive aspect' which follows the stem, wek 'see' in the following examples.

weknct	'we saw you'	wekntm	'we saw him'
wekntp	'you saw him'	wekncl̓x	'they saw you'
weks	'he saw him'		

In the last example, weks, we state that the morpheme -n 'completive aspect' is represented by a zero allomorph following wek 'see'. Justification for the statement is the rule n ---> ∅ /—— s, which we apply in this specific instance and in many instances elsewhere, e.g. with k^{w}en 'take', where the final consonant is present in t-k^{w}en-ps-n 'I seized his tail' (location - take - tail - I), but lacking in k^{w}e-s-tn 'I take it' (take - customary aspect - I), where the rule applies. The positing of a zero allomorph in this manner permits us to make a statement like the following: There is an aspect morpheme present, overtly or covertly, in every transitive Okanagan verb. Such a statement would be a source of controversy within the IA model. If we followed Harris's 1942 procedure,[52] and divided expressions into the 'smallest sequence of phonemes' and called them 'morpheme alternants' of a single morpheme, when they had the same meaning, every allomorph

would be phonemically constituted. But if we adopted Hockett's modification and permitted 'zero features, as in sheep (sg.): sheep (pl.)',[53] certain zero allomorphs would be allowed.[54] If we chose to disallow zero allomorphs, our statement of aspectual occurrence in transitive verbs would have to be conditioned with a list of environments where aspect markers were not overtly present. In the present instance, we posit zero allomorphs, and refer the reader to the morphophonemic rules for their location.

In a discussion of Okanagan syntax we note that certain units do not always occur in the same sequence relative to each other; that is, the order is sometimes X + Y, and sometimes Y + X. Such structural changes are covered by process rules applicable under certain stated conditions. Since IA procedure does not permit process rules, the two sequences are more easily treated as separate constructions. For example, a basic syntactic pattern in Okanagan is Nominalizer + Noun Stem:

s + k'ot : /sk'ót/ 'half'
s + lep' : /slép'/ 'wood, lumber'
a + c + gep : /acgép/ 'tree'
sn + ena : /snéna/ 'owl'

But we also find cases where the order is reversed: Noun Stem + Nominalizer:

t'ox + tn : /t'oxtn/ 'airplane'
ya? + cen : /yacén/ 'shore'
cet + x^W : /cetx^W/ 'house'

By using an IP approach, we are able to state that the single basic

pattern is Nominalizer + Noun Stem. We apply the rule Nom + NStem ---> NStem + Nom, when Nom is represented by a group of morphemes which includes -tn 'nominalizer', -cen 'edge', and $-x^W$ 'house'. The IA approach would require the positing of two separate syntactic patterns: Nominalizer + Noun Stem, and Noun Stem + Nominalizer, with a possible accompanying remark noting the similarity between constituent elements in the two patterns. Our choice of an IP description here indicates a preference for a smaller number of basic syntactic patterns, together with process rules rearranging the elements, rather than a larger number of (apparently) independent patterns, and no process rules.

Okanagan, as a viable language, is approaching extinction. Within two or three decades, data may no longer be available to permit descriptive statements of the type presented below. Our statements can be co-ordinated with little difficulty with similar ones found in the work of Reichard and Vogt mentioned above. We thus hope to facilitate comparative work in Interior Salishan languages.

FOOTNOTES

[1] Powell 1891. See the Bibliography in the Appendix for publication details. By 1946, comparative study of this stock was still lacking. Hoijer, in Osgood 1946:13, commented: 'The classification of the Salishan languages is still unclear'.

[2] See map showing Salish tribes in the 18th century in Boas and Haeberlin 1927:119.

[3] Swadesh 1950.

[4] Swadesh 1950.

[5] Boas and Haeberlin 1927.

[6] Mooney 1928

[7] Jenness 1932:358. Swanton 1952:432 cites the following figures with his sources in brackets. Okanagan population 1900: 2,500-3,000 (Teit, 1900), 1905: 1,516 of which 825 lived in Canada and 629 in the United States. For the years 1964 and 1967, the Canadian Federal Government has issued population figures of 1,684 and 1,503 respectively. Probably less than half these people are fluent Okanagan speakers. See Traditional Linguistics and Cultural Affiliations of Canadian Indian Bands. Department of Citizenship and Immigration, Indian Affairs Branch, Ottawa, 1964, and Linguistic and Cultural Affiliations of Canadian Indian Bands. Department of Indian Affairs and Northern Development, Indian Affairs Branch, Ottawa, 1967.

[8] Chafe 1962:167. Not included in these figures are Okanagans who are English-speaking monoglots.

[9] Swanton lists the following groups. Similkameen: Upper Similkameen Band--Ntkaihelok village, 11 miles south of Penticton, Snazaist village, east of Hedley, Tcutcuwiha village on Similkameen River; Ashnola Band--Ashnola village, near mouth of Ashnola Creek, Nsrepus village, just south of Ashnola village; Lower Similkameen Band--KekerEmyeaus village on Similkameen River near Keremeos, Nkura-elok village on south bank of Similkameen River opposite Skemkain, Skemkain village just south of Nkura-elok, Smelalook village ten miles below Nsrepus. Okanagan: Douglas Lake Band--Kathlemik village at the mouth of the Upper Nicola River, Komkonatko village on Fish Lake, Kwiltcana village at the mouth of Quilchene Creek, Spahamen village at Douglas Lake; Komaplix Band--Nkamapeleks village at head of Okanagan Lake, Nkekemapeleks village at head of

Kalamalka Lake, Nkokoston village near Kelowna, Skelauna village at Kelowna, Sntlemukten village a little north of the head of Okanagan Lake, Stekatelkeneut village on Kalamalka Lake, Tseketku village on Round Lake, Tselotsus village at Kalamalka Narrows, Tskelhokem village at south end of Kalamalka Lake; Penticton Band---Penticton village at south end of Okanagan Lake, Stekatkothlknew village on Kalamalka Lake; Nkamip Band---Nkamip village at north end of Osoyoos Lake, Sciyus village near Haynes, Skohenetk village at south end of Skaha Lake. Swanton 1952:431-32. For a translation of some of these village names see Hill Tout 1911:130.

[10] The bracketed dates are publication dates. Tolmie 1877:253-65. Gibbs 1877:252-64. Boas 1890:679-715. Boas and Haeberlin 1927:117-36. Le Jeune 1897. Le Jeune, Kamloops Wawa. Published in regular monthly editions from May 1891-December 1904, with special editions until 1917. Le Jeune 1925a. Le Jeune, n.d. Okanagan Gospel Readings, Kamloops. Le Jeune, n.d. Liturgy and Ritual, Roman Catholic Church. Okanagan. I Smemeies, i Nkaumen, i Snkuenzin, i Okanakan Nkalkooltens. Paris. Hill Tout 1911:130-61.

[11] Swadesh 1952:232-48.

[12] Boas comments: As the vowels in Salish tend to be very variable, it is not possible in most cases to use the unaccented vowels for studying the sound shifts, unless we know them to be long. Boas and Haeberlin 1927:127. Had Boas found the means of dividing these vowels into phonemic (significant) and nonphonemic (automatic) vowels we believe his task would have been greatly simplified. The Okanagan data in the 1927 study was drawn from Boas's 1890 article and Hill Tout's 1911 report.

[13] Boas 1890:714-5.

[14] See account in Cronin 1960.

[15] Le Jeune called it the Duployan Phonetic Alphabet in Le Jeune 1895, Vol.4, and The Wawa Shorthand in Le Jeune 1896, Vol.5:4-10 and Le Jeune 1896, Vol.5:52-7. The Duployan method exists as one of the three major shorthand systems used in modern France, the others being the Prévost-Delauney and Aimé-Paris-Guénin systems. In 1950 the French Ministry of Education officially chose Deployan shorthand as the only shorthand system permitted in state controlled technical education institutes. See Hautefeuille 1952.

[16] Le Jeune 1925a:18 and Le Jeune 1925b:2. Le Jeune is not specific about the phonetic values of these sounds.

[17] Hautefeuille 1952:60.

[18] Hautefeuille 1952:85.

[19] Hautefeuille 1952:98.

[20] Hautefeuille 1952:99.

[21] Hautefeuille 1952:99.

[22] Hautefeuille 1952:27.

[23] Hautefeuille 1952:27.

[24] Hautefeuille 1952:34.

[25] This increases the inventory of symbols. Hautefeuille 1952: 37.

[26] Le Jeune 1898, Vol.8.

[27] Le Jeune 1925b:6.

[28] Le Jeune 1925b:5-11.

[29] Le Jeune 1925b:11.

[30] Hill Tout 1911:139.

[31] Swadesh 1952.

[32] Swadesh 1952:238.

[33] Hole: a nonsymmetrical feature of an observed system. Pike 1947a:239.

[34] This rearrangement brings w into the k^W order and increases the significance of the statement in Swadesh 1952:244, 'The basic change of w to g^W is very important' in Clallam and Tillamook. For other statements on the relation of w to velar stops, see Reichard 1938:631 and Sapir 1915:7-8.

[35] Vogt 1940a.

[36] Vogt 1940a:18.

[37] Reichard 1958:293-300.

[38] Kinkade 1967:228,232,232,229 respectively.

[39] Reichard 1938. Vogt 1940b.

[40] Harris 1951.

[41] Harris 1951:243.

[42] Greenberg 1968:64.

[43] For evaluations and bibliographies relevant to Item and Process and Item and Arrangement see Koutsoudas 1963:160-70, and Greenberg 1968:53-77.

[44] Greenberg 1968:70.

[45] Hockett 1954 appears to reject the concept of the discontinuous morpheme at the beginning of para 3.2, while accepting it in para 4.1 (4). He had previously accepted it in Hockett 1947, para 5 (2). It is accepted by Harris 1945:121-7.

[46] Koutsoudas 1963:161.

[47] Bloch 1947:407.

[48] Bloch 1947:400. The term 'replacement' was used to answer Bloch's objection by Nida 1948:415.

[49] Bloch 1947:para 2.3 (3).

[50] Koutsoudas 1963:162.

[51] Harris 1951. See comment by Householder 1952:268, 'I must add that chapter 14 (Morphophonemics) is excellent'.

[52] Harris 1942:169, para 2.1.

[53] Hockett 1947:para 1.3 (5).

[54] Bloch 1947:402 accepted zero allomorphs under this condition: 'one of the alternants of a given morpheme may be zero; but no morpheme has zero as its only alternant'. Harris 1951 made a similar concession in chapter 14, para 33.

CHAPTER TWO

PHONOLOGY

Phonemes

Okanagan has thirty-five segmental phonemes: three vowels and thirty-two consonants. The consonants are illustrated in a schematic representation, Figure 1. There are two stress phonemes. Below we describe and symbolize each of the phonemes. When the actualization of a phoneme differs from the generalized description given first, we describe the variation later, under Principal Allophonic Variations.

VOWELS

1. The high front unrounded vowel is symbolized as e.
2. The low mid unrounded vowel is symbolized as a.
3. The high back rounded vowel is symbolized as o.

CONSONANTS

1.	p'	t'	ƛ'	c'	$k^{w'}$	k'	$q^{w'}$	q'	ʔ
2.	p	t	ƛ	c	k^{w}	k	q^{w}	q	
3.			ɬ	s	x^{w}	x	$x̣^{w}$	x̣	h
4.	m	n	l	r	w	y		ɛ	ʕ

Series 1 is called glottalized stops.

Series 2 is called unglottalized stops.

Series 3 is called voiceless continuants.

Series 4 is called voiced continuants.

Figure 1. Consonant Chart

There are nine glottalized phonemes.

1. The voiceless glottalized bilabial stop, symbolized as p'.
2. The voiceless glottalized alveolar stop, symbolized as t'.
3. The voiceless glottalized lateral affricate, symbolized as ƛ'.
4. The voiceless glottalized alveopalatal affricate, symbolized as c'.
5. The voiceless glottalized labialized velar stop, symbolized as $k^{w'}$.
6. The voiceless glottalized velar stop, symbolized as k'.
7. The voiceless glottalized labialized uvular stop, symbolized as $q^{w'}$.
8. The voiceless glottalized uvular stop, symbolized as q'.
9. The voiceless laryngeal stop, symbolized as ʔ.

Corresponding to the above, are eight phonemes without glottalization.

1. The voiceless bilabial stop, symbolized as p.
2. The voiceless alveolar stop, symbolized as t.
3. The voiceless lateral affricate, symbolized as ƛ.
4. The voiceless alveopalatal affricate, symbolized as c.
5. The voiceless labialized velar stop, symbolized as k^{w}.
6. The voiceless velar stop, symbolized as k.
7. The voiceless labialized uvular stop, symbolized as q^{w}.
8. The voiceless uvular stop, symbolized as q.

There are seven voiceless continuants.

1. The voiceless alveolar lateral, symbolized as ł.
2. The voiceless blade alveopalatal groove fricative, symbolized as s.

3. The voiceless labialized velar fricative, symbolized as x^{w}.
4. The voiceless velar fricative, symbolized as x.
5. The voiceless labialized uvular fricative, symbolized as x̣^{w}.
6. The voiceless uvular fricative, symbolized as x̣.
7. The voiceless laryngeal continuant, symbolized as h.

There are eight voiced continuants.

1. The voiced bilabial nasal, symbolized as m.
2. The voiced alveolar nasal, symbolized as n.
3. The voiced alveolar lateral, symbolized as l.
4. The voiced alveopalatal intermittently stopped flap, symbolized as r.
5. The voiced laxly labialized continuant, symbolized as w.
6. The voiced palatal continuant, symbolized as y.
7. The voiced uvular fricative, symbolized as g.
8. The voiced pharyngeal continuant, symbolized as ʕ.

STRESS

The two suprasegmental phonemes are primary and secondary stress symbolized with an acute and a grave accent respectively, placed above the vowel that they accompany.

Phoneme Distribution

Every utterance is composed of one or more vowel phonemes with or without accompanying consonants. Every utterance includes at least one instance of primary stress.

Morphemes that make up utterances are variously composed of a single phoneme or a group of phonemes, the total number of

constituent phonemes varying, but exceeding five only in borrowings.

A common canonical form among prefixes is C, e.g. p- 'ye subject'; among root morphemes, CVC, e.g. kéc 'come', and among suffixes CVC, e.g. -mén 'instrument'.

Certain phonemes are found to occur in prefixes, in stems, and in suffixes, e.g. p, m, t, n, ƛ, l, c', c, s, k^w, x^w, k, e, a, o. These phonemes, however, represent less than half the total inventory. The remainder are more restricted in their morphemic occurrence. For example, r, $q^{w'}$, ǥ, and ʕ occur exclusively in stem morphemes; and in this restricted environment, r never appears morpheme initially.[1]

The pharyngeal consonant ʕ in the Head of the Lake dialect rarely occurs beyond a contiguity with the vowel a. This raises the possibility that pharyngealization could be presented as a feature of the vowel phoneme a in one or more of its allophonic constituents. The idea is rejected because such occurrences are unpredictable and because the pharyngealization sometimes precedes and sometimes follows the vowel. Alternatively, we could establish another vowel phoneme, calling it a retracted or pharyngeal a, distinct from the existing a phoneme. Such a vowel would be a member of a system having two high vowels, and two low, or two front, and two back. This possibility is rejected because such a vowel would have an atypical pattern of occurrence. For example, when two established vowels occur contiguously in Okanagan, they are separated in articulation by automatic glottalization when the second member is primarily stressed:

/spóós/ : [spo^'o^s] 'heart'. Such would not be the case with a hypothecated pharyngeal A vowel: In [ts^{Ɨ}là^{ˤ}áwt$^{\dot{E}}$m'] 'small valley' there is no glottalization. If ^{ˤ} were a typical vowel, we would expect there to be. On the other hand, ^{ˤ} is post-glottalized under the same conditions as voiced continuants are (See page 64). Consequently ^{ˤ} is treated as a consonant: a voiced continuant.[2]

There are occasional cases in the data where ^{ˤ} occurs beyond a contiguity with a, e.g. ^{ˤˤ}ax 'it has tiny stripes'. In each case, however, ^{ˤ} morphologically is a partial reduplication of a morpheme having the phonemes ^{ˤ} and a in its base form.

Primary stress accompanies only one of the prefixes, talé- 'very'. Otherwise, it appears only on stems or suffixes.

In the data, the phonemes w and q$^{w'}$ appear before o, but no other labialized consonant does.[3]

CLUSTERING

By clustering is meant a consonantal phoneme sequence uninterrupted by vowels, or a vocalic phoneme sequence uninterrupted by consonants.

Vocalic clustering occurs to a maximum of two. The two vowels may be geminate or may be different vowels.

sqeem	'milk'	taam	'he pounded something'
spoos	'heart, mind'	sep'eálqs	'buckskin jacket'

stq^{W}tq^{W}neólawx 'ghost'
sqaém 'breast'
x̣ax̣aólawx 'rattlesnake'
ntxoétk^{W} 'large valley'
xoatk^{W}wélx 'it (the water) is rising'

In geminate pairs, the first vowel always bears the same stress phoneme as the second, either primary or secondary. But in clusters of unlike vowels, an additional stress distribution is sometimes found where primary stress falls on the first vowel, and secondary stress falls on the second vowel. The following are examples.

Primary stress plus primary stress: /spóós/ 'heart'
Primary stress plus secondary stress: /swéà/ 'sunflower shoots'
Secondary stress plus secondary stress: /kòàsláx̣t/ 'I am thy friend'

There are no examples in the data of secondary stress plus primary stress on adjacent vowels.

Consonantal clusters are more elaborate than vocalic clusters. There are geminate pairs.

kok^{W}eékss 'he bit my hand'
łłt'améxx 'he is fishing'
mnemłtt kok^{W}éll 'we sat'
łk'mmelx^{W} 'upper part of back'
knnamtétk^{W} 'I am sitting in the water'

There are also clusters of up to eight consonants.

nq$^{W'}$nq$^{W'}$moł 'he always steals'
lemtms 'her happiness about him'
kolémkstmntx^{W} 'thou offered me the hand of friendship'
kntrqpncot 'I ran'[4]
knłcxoy 'I came back'
sqlqltmex^{W} 'men'

Phonetically, an automatic pepet vowel (see pages 51-9) appears between most of these consonants. Statements on consonantal occurrence restrictions are found on pages 35, 211, and 266.

FREQUENCY COUNT

In any randomly selected corpus certain segmental phonemes occur with a greater degree of frequency than others. Figure 2 illustrates this feature in a given word list.[5]

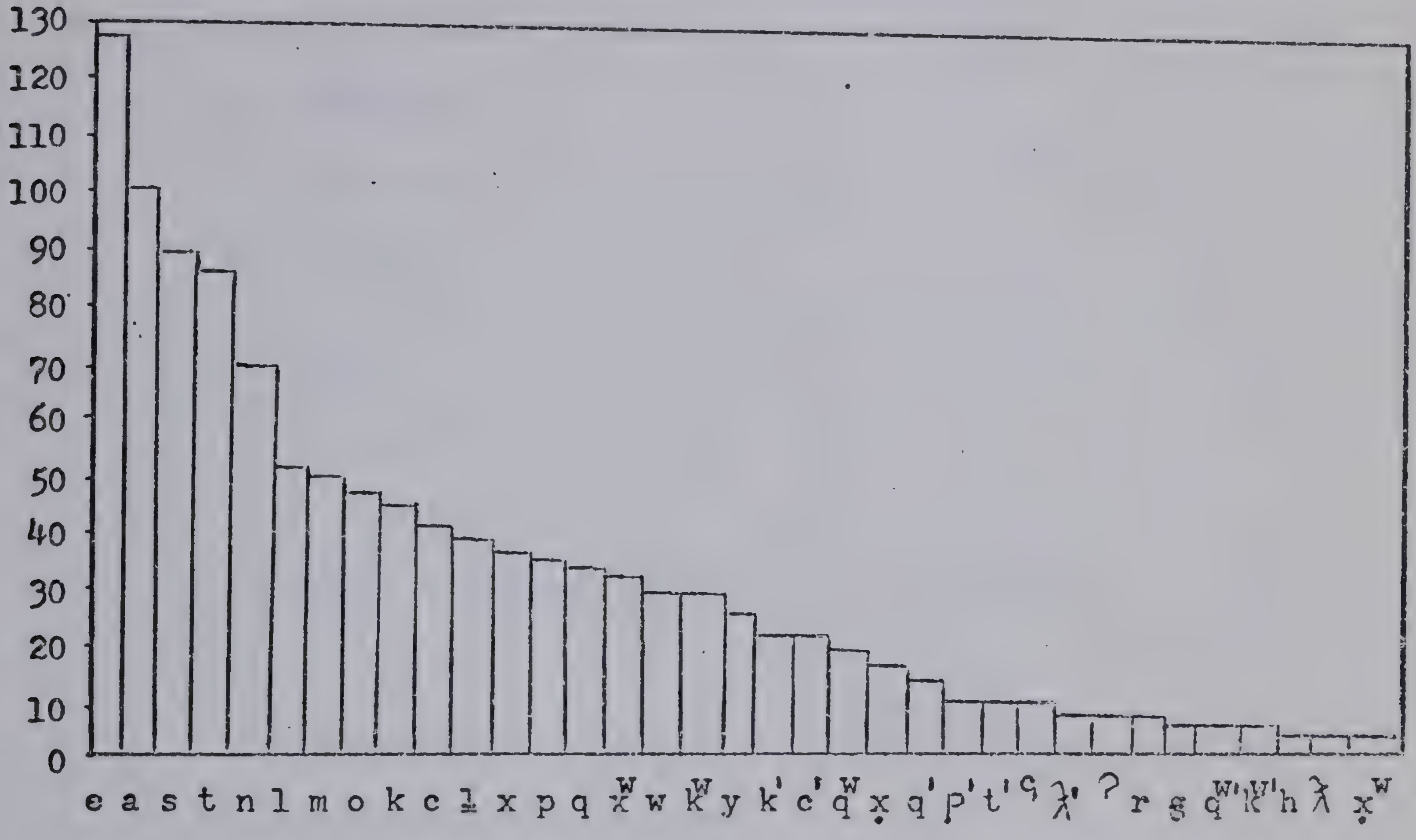


Figure 2. Segmental Frequency Count in Random Word List

POSITIONAL DISTRIBUTION

In the examples that follow, we illustrate stress, consonantal, and vocalic occurrences, as they appear in our data. The presentation in phoneme pairs (The consonants are diagramed in Figure 3.) illustrates parallel phoneme distributions that support the independent status of the segments under discussion.[6] Consonant phonemes are compared initially before vowels, as they occur, and finally. Contrasts are highlighted by means of morpheme separation.

A. Vowels

The three vowel phonemes are distributed initially, medially, and finally.

a and e: a 'thy' in astáłm 'thy boat'
nas 'heavy' in nast 'heavy'
axá 'this one'
alá 'here'
e 'my' in estáłm 'my boat'
nes 'distant'
exé 'that one'
elé 'yonder'

a and o: ał 'more'
mat 'maybe'
q$^{w'}$ay 'black'
ka 'crow' in skkáka 'bird'
oł 'and, then'
mot 'he sat'
q$^{w'}$oy 'it (wind) calmed down'
ko 'we' in kokéc 'we came'

e and o: ep 'wipe' in epn 'I wiped it'
mes 'more'
xet 'lay on hands' in knxetn 'I helped him'
peƛ 'rock rose' in speƛm 'bitter root'
ke 'indeed'
opnkst 'ten'
mos 'four'
xot 'down' in kaxót 'down there'
poƛ 'beat' in poƛstm 'he beat him'
ko 'we' in koxóy 'we went'

B. Consonants

Consonant phonemes are illustrated in pairs. The arrows in Figure 3 indicate pairs brought together for illustration. They have a degree of phonetic similarity which rendered them particularly suspicious when the phonemes were being established.

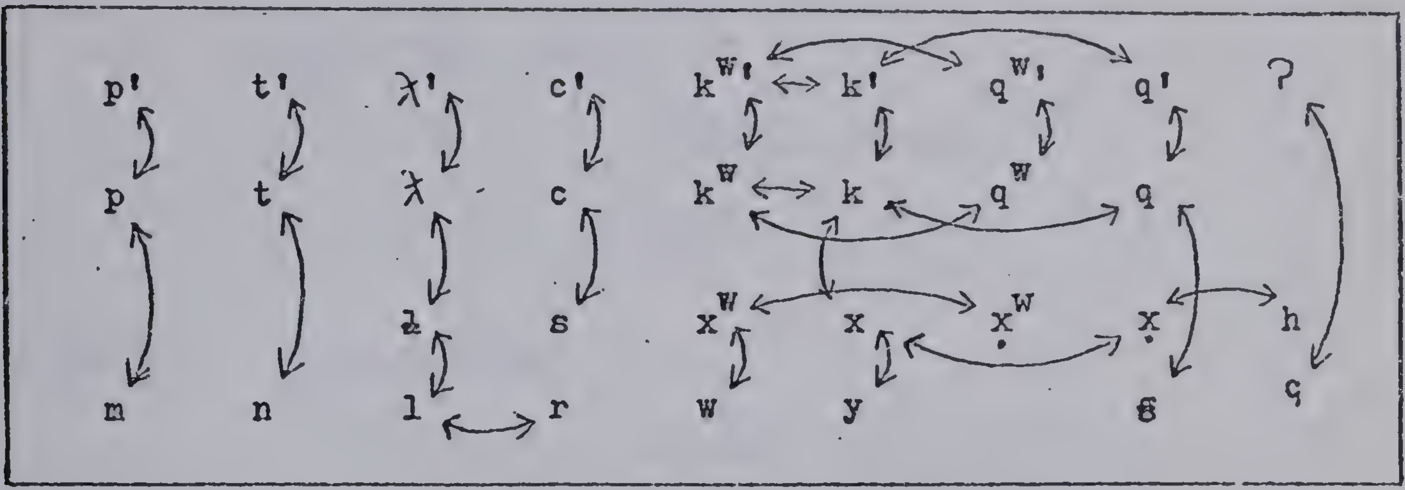


Figure 3. Comparison of Consonant Phonemes

p and p':	pex̣m 'he hunted it'
	packɬ 'leaf'
	pomén 'drum'
	nslep 'he's lost'
	p'exm 'he branded it'
	p'omén 'fart'
	nslep' 'it's wood'

There are no examples of the sequence p'a. . . in our data.

t and t':	stels 'will, mind'
	tom 'woman's mother'
	tax̣t 'it is bitter'
	q'et 'it rained'
	st'els 'his dried salmon'
	t'om 'smile' in tt'omt'ómsm 'smile'

t'axt 'it is sweet'
q'et' 'fish hook'

ƛ and ƛ': eƛé 'later on'
ƛa 'from' in ƛakén 'whence'
ƛok 'carrot' in sƛokm 'carrot'
eƛ'él 'he's silent'
ƛ'a 'seek out' in ƛ'ak^{W}élx 'shaman'
ƛ'o$^?$ntén 'I doused it'

c and c': celkst 'five'
ca 'brother' in ɬsésnca 'younger brother'
co$^?$ 'seek out' in co$^?$ncót 'manhood trial'
kec 'come' in knkecx 'I came'
c'elx^{W}t 'he's hungry'
c'a 'game animal' in steéɬc'a 'elk'
c'o 'burn' in c'okncét 'we burnt you'
kec' 'be hungry' in knnkec'x^W 'I was hungry for meat'

k^W and k^W': ek^{W}én 'I took it'
k^{W}ac 'strong' in k^{W}ck^{W}ac 'he's strong'
tak^W 'it's rotten'
ek^W'énx 'how many?'
k^W'ac 'night' in snk^{W}k^W'ac 'night time'
tek^W' 'spark' in steek^W' 'spark'

k and k': kem 'dislike' in kemn 'I disliked him'
kam 'or'
kot 'distant' in ɬkot 'it's far away'

nek 'ordure' in mnek 'manure'

k'em 'it's dark'

k'am 'he struck'

k'ot 'half' in sk'ot 'fifty cents'

nek' 'cut' in scnek' 'he was cutting'

k^{w}' and k': k^{w}'en 'quantity' in ek^{w}'énx 'how many?'

k^{w}'ac 'night' in snk^{w}k^{w}'ac 'night time'

ƛak^{w}' 'pierce' in ƛƛak^{w}' 'chicken hawk'

k'em 'it remained'

k'at 'brown'

k'ot 'half' in sk'ot 'fifty cents'

lak' 'tie up' in clak' 'he's in jail'

k^{w} and k: k^{w}el 'sit' in k^{w}ellx 'he sat down'

k^{w}a$^{?}$ 'bite' in k^{w}a$^{?}$ntén 'I bit him'

wek^{w} 'hide' in wek^{w}n 'I hid it'

kel 'grasp' in kelx 'hand'

ka 'crow' in skkáka 'bird'

ko 'we' in koxóy 'we went'. C.f. k^{w}xoy 'thou went'

wek 'see' in wekn 'I saw it'

q^{w} and q^{w}': q^{w}ey 'dark brown' in q^{w}eysp 'buffalo'

q^{w}ay 'blue, green'

mq^{w}aq^{w} 'it's snowing'

q^{w}'eyt 'smell of something burning'

q^{w}'ay 'black'

mq^{w}'aq^{w}' 'it's a lump'

q and q': sqelx^{W} 'Indian'
qa 'breast' in sqaém 'breast'
qom 'desirous' in qomq^{W}mt 'excellent'
taq 'wave' in taqn 'I waved it'
sq'elx^{W} 'pair'
q'a 'cover' in sq'ax̣án 'shoe'
q'om 'move' in tek'em cq'omékst 'he could scarcely move a finger'
taq' 'short' in ttáq'at 'he's short'

q^{W} and q: q^{W}el 'speak' in q^{W}lq^{W}elt 'he spoke'
q^{W}ay 'blue, green'
t'aq^{W} 'he cried out'
qel 'Indian' in sqelx^{W} 'Indian, person'
qay 'pull' in lqáyaqn 'I pulled his hair'
qołt 'dust'
taq 'wave' in taqn 'I waved it'

k^{W}' and q^{W}': k^{W}'en 'quantity' in ek^{W}'énx 'how many?'
k^{W}'ac 'night' in snk^{W}k^{W}'ac 'night time'
łak^{W}' 'pierce' in łłak^{W}' 'chicken hawk'
q^{W}'eʔ 'plant' in sq^{W}'e^{ʔ}nłk 'trial planting'
q^{W}'as 'engender' in sq^{W}sq^{W}'asténk 'Coyote's generative power'
ƛ'aq^{W}' 'ladle'

k^{W} and q^{W}: k^{W}el 'sit' in k^{W}ell 'he sat'
k^{W}a 'indeed'

tak^{w} 'it's rotten'

q^{w}el 'speak' in q^{w}elm 'song'

q^{w}a^{ʕ} 'slip' in q^{w}a^{ʕ}áp 'he slipped'

t'aq^{w} 'he cried out'

k' and q': k'em 'it remained', ck'ełp 'rib'

k'a 'place' in k'akén 'where'

k'ol 'work' in k'olm 'he fixed it'

lak' 'tie up' in clak' 'he's in jail'

q'em 'soon', cq'ełp 'fir tree'

q'a 'protect' in q'axán 'shoe'

q'ol 'learn' in q'olnós 'he's learning'

łaq' 'wide' in łq'łaq't 'carp fish'

k and q: ken 'interrogative' in takén 'when?'

ka 'crow' in skkáka 'bird'

kom 'hold several' in snkomn 'pocket'

ko 'we' in komós 'we are four'

c'ek 'burn' in knc'ekk 'I got burnt'

qen 'head' in toxxqén 'noon'

qa 'breast' in sqaém 'breast'

qom 'desirous' in qomq^{w}mt 'excellent'

c'eq 'shock' in knc'eqq 'I got a shock'

p and m: pen 'time' in pent 'always'

pot 'very, still'

pa^{ʕ} 'gray, infinity'

t'ap 'aim at' in t'apám 'he aimed at it'

men 'instrument' in pomén 'drum'
mot 'he sat'
maˤ 'broken' in maˤt 'it is broken'
t'am 'seize' in kɬt'ampqn 'I seized his hair from behind'

t and n: texʷ 'thou' in caʔntéxʷ 'you hit him'
taɬ 'very' in taɬt 'very'
tom 'mother'
weknct 'we saw thee'
nexʷ 'also'
naɬ 'and'
nom 'body' in swenómtx 'handsome person'
wekncn 'I saw thee'

ƛ and ɬ: eƛe 'later on'
ƛa 'from' in ƛakén 'from where?'
xoƛ 'teepee' in sxoƛxʷ 'teepee'
aɬé 'because'
ɬak 'bush' in q'ɬak 'bush'
sxoéɬxʷ 'many houses'

ɬ and l: ɬeqʷ 'flesh' in sɬeqʷ 'flesh'
ɬoʔ 'spoon' in ɬoʔmn 'spoon'
ɬap 'sip' in ɬapn 'I sipped it'
spooɬ 'spray'
leqʷ 'ram' in eléqʷlxqn 'big horned ram'
lot 'not'
lap 'fold, bend' in lalaáp 'pocket knife'
spool 'smoke'

Among the affixes we find in contrasting pairs ła- 'subordinate', la- 'at a location' and ł- 'again', l- 'location'.

c and s: cel 'five' in celkst 'five'
caˤ 'bathe' in caˤlx 'he bathed'
cot 'he said'
oc 'interrogative'
sel 'big' in selxcn 'Okanagan Indian'
saˤ 'pour away' in saˤánt 'pour it out!'
sotn 'one's own'
os 'face' in copós 'face hair'

ł and s: łel 'sprinkle' in łelt 'it splashed'
łat' 'it is wet'
łoˀ 'spoon' in łoˀmn 'spoon'
moł 'often' in wahwahmół 'he keeps barking'
sel 'big' in sélxʷa 'big'
sasát' 'they fell off'
so 'power' in soméx 'spiritual power'
mos 'four'

Compare also knłcxoyx 'I came back', knscxoyx 'I am going'; knłckeex 'when I got back . . .', knsckeex 'I am coming'.

ł- signifies 'subordinate': knłtyaqʷt 'while I am fighting'

ł- also signifies 'kin': ełkékxa 'my older sister'

s- signifies 'nominalizer': stxmen 'comb', sp'een 'rope'

s- also signifies '3 person subject/possessive': stałms 'his boat'

r and l: Our data contain no examples of initial r. While l is not a frequent initial consonant, it does occur and has a total distribution that includes that of r: k'ram 'he swam', k'lacgép 'towards the tree'; sknermn 'buttercup', sknelmn 'poison, dope'; ermés 'he pushed him', elméx^{W}m 'chief'; sneráw 'empty-headed', méla 'bait, worm'; sorósm 'he's fish luring (at night)', sólosn 'something I picked up'; korósm 'rekindling wood', k'olósm 'he lit it'; soréslp' 'wood fire', loléwlx 'bell'.

x^{W} and w: x^{W}ex 'go!'
x^{W}ay 'sharp' in x^{W}ex^{W}áyt 'it's sharp'
wex 'be upright' in cwex 'camp'
way 'he finished'
ław' he made a jab'

x^{W} and x̣^{W}: The phoneme x̣^{W} appears infrequently in our data; and we have no minimal pairs to establish a contrast with x^{W}. But both occur initially, medially, and finally, and we posit them as distinct phonemes on this basis.

x̣^{W}a^{ʕ}ylx^{W} 'fox'
łx̣^{W}łax̣^{W} 'chokecherry'
q^{W}téx̣^{W}a 'louse'
ssax̣^{W} 'it is soft'
x^{W}elwés 'he kept travelling'
k^{W}'ék^{W}'x^{W}na 'mouse'
tex^{W}ck 'tongue'
sqltmex^{W} 'man'
cetx^{W} 'house'

x and y: xelm 'he did it'

xa 'caw' in xáxa 'crow (bird)'

xoƛ 'teepee' in sxoƛx^{w} 'teepee'

ˁax 'it is a furrow'

yer 'it is round'

ya 'all' in yayát 'all'

yoƛ 'raven' in yoƛx^{w} 'raven'

ˁay 'mouth region' in ˁaytmn 'tooth'

k and x: kel 'grasp at' in kelx 'hand'

kam 'or'

kos 'curl' in stkosqn 'he has curly hair'

pek 'he prepared timber'

xel 'do' in xelm 'he did it'

xam 'like' in xamenks 'he liked it'

xos 'foam' in nxosk^{w} 'beer'

p'ex 'he branded'

x and x̣: xeƛ' 'it is in line'

axá 'this one'

xoyx 'go!'

t'ax 'sweet' in t'axt 'it is sweet'

xeƛ' 'he climbed'

x̣ast 'it is good'

x̣oyƛ' 'he climbed'

tax̣ 'bitter' in tax̣t 'it is bitter'

x̣ and h: h is morpheme final in wah '(dog) barks' and hah '(person) laughs'. No examples of utterance final h can be found.

x̣eqm 'he scrubbed it'

x̣as 'good' in x̣ast 'it is good'

x̣oyƛ' 'he climbed'

hewt 'rat'

ha 'interrogative'

mhóyya 'raccoon'

g: This phoneme has a low functional yield,[7] appearing infrequently in our data.

g and q: gep 'long object stands' in cgep 'tree'

stt'gap 'brook'

goy 'burrow' in goyxótn 'badger'

lg 'sting' in lgmen 'insect's stinger'

qep 'grow' in qepen 'springtime'

ácqa 'outside'

qo 'take, catch' in qonóntm 'we caught it (disease)'

lqáyaqn 'I pulled his hair'

ʔ and ʕ: Since ʕ in our data never occurs contiguously with any vowel other than a, we present only pairs that involve this particular vowel.

ʔax 'turn' in knʔáxlmnm 'I turned it around'

ʕax 'stripe' in ʕʕax 'it has little furrows'

ʔay 'consolidate' in k'ɬʔayq̣nt 'tie it up (sack)!'

ʕay 'mouth region' in ʕaytmn 'tooth'

ʔácqa 'outside' in knʔácqa 'I am outside'

ʕac' 'look at' in knʕac'm 'I looked at it'

caʔ 'punch' in caʔntén 'I punched him'

caʕ 'bathe' in caʕlx 'he bathed'

The glottal stop has a wider distribution. The following pairs show its presence and absence.[8]

pomén 'drum, ppom^{ʔ}én 'little drum'

xamał 'fly', xxm^{ʔ}ał 'flies', xaxm^{ʔ}áł 'little fly'

x^{w}x^{w}ména 'trout', x^{w}x^{w}m^{ʔ}éna 'rainbow trout'

sqooł 'blowing particles', sqo^{ʔ}ł 'wasp'

C. Stress

Primary and secondary stress occur with vowels initially, medially, or finally in an utterance. Here we mark primary stress with an acute accent and secondary stress with a grave accent. Elsewhere, we omit the secondary stress marker. See Principal Allophonic Variations, paragraph C. for our orthographic system for distinguishing stress.

él	'than'	èlé	'yonder'
ácqà	'outside'	àlá	'here'
ópnkst	'ten'	ltkó	'otter'
xáxà	'crow'	xàxá	'spiritual power'
kók^{w}à	'stranger'	kòk^{w}á	'we bit'

Primary stress in an utterance can be found on the stem or on the affix:

tk^{w}énxntx^{w} 'you seized his leg' -- stem stressed

c'èlxntéx^{w} 'you seized him' -- affix primarily stressed

Of the affixes, only one prefix is ever primarily stressed: tàlé- 'very'. When this morpheme is present in an utterance, there are two instances of primary stress.

tàlékn^{ʕ}áymt 'I am very angry'

Every utterance includes one or two occurrances of primary stress, never more.

lót	'no'	táám	'he pounded something'
swéà	'sunflower seed'	lééw	'father'

But not every utterance includes cases of secondary stress occurrence, as illustrated in the preceding examples. The maximum number of secondary stress occurrences in any single utterance is three.

kèc'òòkékst 'he is indeed burning his hands'

nq^{w}àq^{w}àyácà 'first green salmon'

The matter of stress distribution in relation to morpheme occurrence is discussed under Morphophonemics.

Phonetics

SYLLABIFICATION

In A Manual of Phonology, C.F. Hockett presents a discussion of syllable types, among which is the following.

> Onset Type. This type of syllable structure is most unusual from our Western point of view, but seems to be undeniably attested to in at least one case: Bella Coola. . . . .The key feature of Bella Coola syllable structure is that while every syllable has a distinctive onset, many syllables contain no other syllable-element distinctively. . . . .Thus there is a set of units, full consonants, which constitute onsets wherever they occur, and are therefore nuclei of syllables on every occurrence.[9]

Bella Coola has utterances lacking vowel phonemes, e.g. /mnk/ 'excrement'. But in such utterances an 'automatic murmur vowel' separates some of the consonants. Okanagan resembles Bella Coola to the extent of having onset type syllables, that is, syllables phonemically marked only by the presence of a consonant; but it does not have utterances completely lacking vowel phonemes, e.g. 'excrement' in Okanagan is /mnék/. Here there are two syllables /m-nék/, the first peak located in an automatic murmur vowel.

The Okanagan utterance, as it appears in our phonetic data, is made up of one or more variously stressed syllables.[10] In phonetic terms, the syllable may be generalized at n/(s)CV(s)(C)(T). Here n represents a syllabic n, s represents the s phone, C represents any consonant, V represents any vowel, and T represents a so-called 'terminal consonant' specified below.

The n alone can constitute a syllable. Otherwise a syllable is composed of a vowel with at least one affixed consonant.

In the discussion below we consider syllables as they appear in speech of normal speed. In fast or excited speech, the number of syllables in a given utterance can decrease. In slow careful speech, the number of syllables can sometimes increase, when, for instance, a single [CVC] syllable becomes [CV] plus [CV], two syllables. For example, /knkéc/ 'I came', in speech of normal speed has two syllables, [k$^{\text{Ɨ}}$n ké^ts]. In slow careful speech it can sometimes be heard as tri-syllabic, [k$^{\text{Ɨ}}$ n$^{\text{Ɨ}}$ ké^ts].

Elements considered in Okanagan syllabification are the syllabic n, the nonsyllabic terminal, pre- and postpeak consonants, the vowel phoneme, and the automatic pepet vowel.

1. The syllabic n. This feature occurs only in utterance initial position, and is always followed by another consonant. This initial n constitutes a minimally stressed syllable.

nwest: [ṇ we^stʻ] 'it is high' -- two syllables

nkkwap: [ṇ k$^{\text{Ɨ}}$k wápʻ] 'it is a dog' -- three syllables

Contrast monosyllabic nast: [nástʻ] 'it is heavy'.

2. The nonsyllabic terminal. This element is recognizable as a voiceless nonlabialized phoneme, occurring utterance finally and preceded by a different consonant phoneme. There is never a syllable peak between these two segments.

soréslp : [sɔ̀^r ʔé^slp'] 'wood fire' -- two syllables

sx̣alx̣ált : [sx̣æ̀l x̣ált‘] 'day' -- two syllables

qaqx^{w}lx : [qa̋q x$^{w\dot{U}}$lx] 'fish' -- two syllables

tmhólawx : [t$^{\dot{E}}$m hó^ læ̀wx] 'land' -- three syllables

saslásq't : [sæ̀ s^{Ɨ}l ʔásq't‘] 'Tuesday' -- three syllables

esláx̣t : [‘È^ sla̋x̣t‘] 'my friend' -- two syllables

3. Pre- and postpeak consonants. Apart from the syllabic n already discussed, consonants do not phonetically carry the syllable peak. They either precede or follow it. The syllable peak coincides with a vowel. This vowel is preceded by a consonant, C, or by an s plus consonant, sC. Occasionally, there is no consonantal segment after the vowel; but more frequently we find a consonant, C, or sC, sometimes followed by a nonsyllabic terminal, T. Thus every prepeak cluster includes an initial s; and every postpeak cluster includes an initial s, or a terminal T, or both.

4. Syllabic peak elements. The syllable peak can occur with:

a. The syllabic n. When this happens, stress is minimal.

b. a vowel phoneme. When this happens, stress can be primary or secondary.

c. a murmur or pepet vowel.[11] When this happens, stress is minimal.

At the phonetic level we can distinguish the pepet vowel by its vocalic nature and by the fact that it invariably occurs with minimal

stress. The occurrence of this vowel can be predicted, and is consequently omitted in any phonemic transcription.

5. Prediction of the occurrence of the pepet vowel. In predicting the occurrence of a pepet vowel in an Okanagan utterance we establish three groups of consonant phonemes.

Group 1: the single phoneme s.

Group 2: the voiced phonemes.

Group 3: the voiceless phonemes, except s.

A. A pepet vowel will occur between s and s, between two like consonants from Group 3, and between a Group 3 consonant and a following s.

B. A pepet vowel will occur between two unlike members from Group 2, or two unlike members from Group 3.

C. A pepet vowel will occur between a member of Group 2 and a member of Group 3, regardless of which precedes.

These three statements are, however, subject to the syllabic n and terminal consonant rules described above. A pepet vowel is never contiguous with a syllabic n, nor with a terminal consonant as defined.

D. A pepet vowel optionally occurs between a Group 1 consonant and a following Group 2 consonant, and between w and w. That is to say, in rapid speech the pepet vowel is absent.

A pepet vowel will not occur between a Group 1 consonant and a following Group 3 consonant, nor will it occur between like Group 2 consonants, except as specified in D above.

It is thus apparent that the environment of a pepet vowel is interconsonantal. It rarely ends a syllable, as noted above; it is never contiguous with a vowel phoneme, and never appears first or last in an utterance.

In illustrating pepet vowel occurrence we use phonemes together with the symbol P, for pepet vowel.

Group 1: s and s

óloss: ó lo sPs 'she gathered it up'

Group 3: ṫ and t

stałmtt: sta łPm tPt 'our boat'

Group 2: m and n

ˤac̓mn: ˤac̓ mPn 'field glasses'

Group 3: q and p

qpqentn: qPp qen tPn 'hair'

Groups 2 and 3: n and xʷ

naxʷnxʷ: naxʷ nPxʷ 'wife'

Groups 3 and 2: x and m

knpex̣m: kPn pe x̣Pm 'I hunted'

Groups 1 and 2: s and n

snk'lep: sPn k'P lep 'coyote'

or: sn k'P lep 'coyote'

Absence of the pepet vowel is illustrated as follows.

Groups 1 and 3: s and t

stałm: sta łPm 'boat'

Group 2: l and l

kokʷéll: ko kʷéll 'we sat down'

6. Nature of the pepet vowel. The pepet vowel is a vocal murmur, being a compromise between full voice and a whisper. Heffner presents the following general description of a vocal murmur.

> It is produced by vibrations of the vocal bands; but these bands are then less elastic or more relaxed than when the normal speaking voice is produced, and the inter-arytenoid margins of the glottal opening are not brought firmly together, but kept slightly apart, thus never quite stopping the flow of breath. The subglottal pressure of the breath stream is somewhat lower for the production of murmured vowels than it is either for fully voiced or for whispered vowels. . . .Murmured vowels have a tendency to lose their identity. . . .This results less from the inadequacy of the vocal murmur as a carrier for the distinctive vowel forms than from the lax muscle tonus characteristic not only of the larynx but also of the other articulatory muscles when speech is murmured. These lax muscles fail adequately to give form to, or to provide modulation of, the cord tone.[12]

It is difficult to categorize the quality of the pepet vowel because of its indistinct nature and its tendency to fluctuate slightly from one occurrence to the next as, for instance, one speaker repeats a given utterance. The vowel, however, is always lax, always bears minimal stress, and always has a generally central articulation.

The pepet vowel is quite distinct from the well-known 'fleeting or mute e' characteristic of French. The following contrasts can be noted.

1. The pepet vowel is produced with muscles lax, while the French vowel is produced with muscles tense.

2. The lips are lax during the articulation of the pepet vowel, while the lips are somewhat protruded when the French sound is made.

3. The pepet vowel always carries minimal stress. The French sound has approximately as much stress as any other French vowel sound; a syllable in which it appears is as long as a syllable with any other

vowel sound.

4. Pepet vowel occurrence is conditioned by certain pairs of consonants, specified above. The occurrence of the French vowel is conditioned by certain triconsonantal groupings.[13]

Three pepet vowels can be recognized: Ɨ, U̇, and Ė, being described respectively as lower-high central unrounded, lower-high central rounded, and mid-mean central unrounded.[14] The consonantal environment, and to a lesser extent, non-contiguous stressed vowels, govern which pepet vowel will appear.

Choice of pepet vowel is made on the following basis.

Group A. Labialized consonants: $k^{w'}$, k^{w}, $q^{w'}$, q^{w}, x^{w}, w, $x̣^{w}$

Group B. Nonlabialized velar and faucal consonants, and voiced continuants, excepting n and l: q', q̣, ?, x, m, r, y, g, ˤ, x̣, h.

Group C. Remaining consonants, except s: p', p, t', t[15], ƛ', ƛ, ł, c', c, k', k, n, l.

Isolate. The phoneme s.

Subject to the factors conditioning pepet vowel presence outlined in 5 above, choice of pepet vowel is as follows.

	Pepet Vowel	Consonant Environment (by Group) (in any sequence)
1.	U̇	Contiguous with Group A
2.	Ɨ	C and C B and s C and s s and s
3.	Ė	B and B B and C

Examples:

1. k^{W}ckec : [k$^{wU̇}$ts ké^ts] 'thou came'
   t'ek$^{W'}$t : [t'é^ k$^{w'U̇}$tʿ] 'lake'
   sqelx^{W} : [sqé^{y} l$^{U̇}$x^{w}] 'Indian, person'
   spwalqn : [sp$^{U̇}$ wál q^{Ė}n'] 'red-headed woodpecker'

2. pptoénawx : [p^{Ɨ}p tó^ ʔé^ næ̀wx] 'old woman'
   knkspéx̣ax : [k^{Ɨ} n^{Ɨ}k spé^{v} x̣æ̀x] 'I'll hunt'
   alk'óstn : [ʿæ̀l k'ó^ st^{Ɨ}n'] 'grindstone'
   snk'lep : [s^{Ɨ}n k'^{Ɨ} lé^pʿ] 'coyote'
   knʔólosm : [k^{Ɨ}n ʔó^ lʌ̀^ s^{Ɨ}m'] 'I gathered (firewood)'
   knʔéɬn : [k^{Ɨ}n ʔé^ ɬ^{Ɨ}n'] 'I ate'
   staɬm : [stá ɬ^{Ė}m'] 'boat'

3. mgmen : ['m^{Ė}g mé^n'] 'safety pin'
   knq'mam : [k^{Ɨ}n q'^{Ė} mám'] 'I swallowed something'
   knpex̣x : [k^{Ɨ}n pé^{v} x̣^{Ė}x] 'I hunted'
   sx̣alx̣ált : [sx̣æ̀l x̣ä́ltʿ] 'day'
   qpq'entn : [q^{Ė}p q'é^{y}n t^{Ɨ}n'] 'hair'
   ˁaytmn : [ˁä́y t^{Ė} m^{Ė}n'] 'tooth'
   pqlqen : [p^{Ė}q l^{Ė} qé^{y}n'] 'eagle'
   knk'ram : [k^{Ɨ}n k'^{Ė} rám'] 'I swam it'
   tmhólawx : [t^{Ė}m hó^ læ̀wx] 'country'

The occurrence of a vowel phoneme bearing primary stress in a contiguous syllable will sometimes[16] have the effect of colouring a pepet vowel. That is, the tongue sill position for the pepet vowel will move slightly towards the tongue sill position for the vowel phoneme. These changes are not accounted for in our notation and

are considered ideolectal variations.

PRINCIPAL ALLOPHONIC VARIATIONS

A. Vowels

Each vowel phoneme has a number of variants which are realized in different environments. The following variations are common to all three vowels.

1. Onset and Coda

/V/: [•V] / #—́. Glottalized onset.
[ʽV] / #—̀. Aspirated onset.[17]
[V•] /—́ ʹ. Glottalized coda.
[V•] /— #. Glottalized coda.

Examples

ál̲e:	[•ál̲È^•]	'it is thus'
exé:	[ʽÈ^xé^•]	'that one'
leew:	[lé^•é^w•]	'father'
ltko:	[lǂtkó^•]	'otter'

2. Length

/V/: [V], when glottalized
[V·], when secondarily stressed and nonglottalized
[V:], when primarily stressed and nonglottalized.

This representation of length is comparative; one vowel is longer or shorter than the other. The actual degree of length varies greatly, and is omitted in examples outside this paragraph. Vowel length is a common rhetorical device used to express a speaker's mood and attitude towards the subject under discussion.[18]

ólosn : [•ó^:lῺ^·sǂn•] 'I gathered it up'

spoos : [spó^'ó^:s] 'heart'

3. The phoneme e.

/e/: [e^v] /— q, x, or x̣.[19]

[e^y] / q, q', x, or x̣—, when nonglottalized.[20]

[e^], elsewhere with primary stress.

[E^], elsewhere with secondary stress.

Examples:

tepyéq : [tÈ^pyé^{v}q] 'it is white'

sqelx^w : [sqé^{y}l$^{\dot{U}}$x^w] 'Indian'

swet : [swé^tʿ] 'who is he?'

sxélwe : [sxé^{y}lwÈ^'] 'husband'

4. The phoneme a.

/a/: [ä], when both primarily stressed and contiguous with a post-velar consonant.

[ȧ], elsewhere with primary stress.

[æ̀], with secondary stress.

Examples:

q^w'ay : [q^w'ä́y'] 'black'

q^{w}ay : [q^{w}ä́y'] 'blue'

^{ʕ}an : [^{ʕ}ä́n'] 'magpie'

pa^ʕ : [pä́^{ʕ}'] 'gray, infinity'

qaqx^{w}lx : [qä́qx$^{w\acute{U}}$lx] 'fish'

mat : ['mȧ́tʿ] 'maybe'

swea : [swé^æ̀'] 'sunflower seed'

5. The phoneme o.

The degree of lip rounding with this vowel is only slight.

/o/: [o^] / —́.

[Ω^] / –̀.

Examples

mot : ['mó^t‘] 'he sat'

koswét : [kῺ^swé^t‘] 'who are we?'

B. Consonants

1. Glottalized stops

In general, the glottalized stops show little variation in phonemic actualization. An exception is c', which is discussed under 2c. below. The symbol for the glottalized stop phoneme indicates the phonetic value for each actualization.

p' p'om : [p'ó^m'] 'brown'

t' t'axt : [t'áxt‘] 'it is sweet'

ƛ' ƛ'al : [λ'ál'] 'he's dead'

c' c'ałt : [ts'áłt] 'it's cold'

k^{w}' k^{w}'enx : [k^{w}'é^nx] 'how many?'

k' k'ast : [k'ást‘] 'it's bad'

q^{w}' q^{w}'ay : [q^{w}'áy'] 'it's black'

q' q'epn : [q'é^p‘$^{\text{I}}$n'] 'I pinched him'

2. Unglottalized stops

In general, these stops are voiceless and released. Variations from this state are as follows.

a. After a vowel bearing primary stress ƛ and k are voiced.

ƛ: kopóƛsc : [kῺ^pó^λsts] 'he beat me'

k: skkáka : [sk$^{\text{I}}$kágà'] 'bird'

b. Before a voiced consonant phoneme, ƛ is realized with a variant having voicing after the release.

ƛyayát : [tl$^{\dot{E}}$yæ̀yátʻ] 'from them all'

c. Fluctuation of c between ts and tš. Generally the release is midway between sibilant and shibilant and rarely at either extreme. However with the approach of old age and loss of teeth informants use a more noticeably shibilant articulation. The same is the case with c'.[21]

con : [tsó^n' ~ tšó^n'] 'I told him'

sopcén : [sῺ^pˉtsé^n' ~ sῺ^pˉtšé^n'] 'beard on chin'

d. Slight labialization of k, q and x before o. Before e and a there is no labialization with these consonants. The labialized consonants k^{W}, q^{W}, k^{W}', and x^{W} have a more noticeable degree of labialization and do not occur before o.[22]

kokókstx^{W} : [kῺ^kó^kst$^{\dot{U}}$x^{W}] 'thank you'

koxóy : [kῺ^xó^y'] 'we went'

mepqonem : ['mÈ^pqῺ^né^m'] 'you can take them'

e. Unlabialized and unglottalized stops in final position. The consonants p, t, k, q vary freely between released and nonreleased when articulated in final position.

kkwap : [k$^{\text{Ɨ}}$k$^{\dot{U}}$wápʻ ~ k$^{\text{Ɨ}}$k$^{\dot{U}}$wápˉ] 'it's a dog'

mat : ['mátʻ ~ 'mátˉ] 'maybe'

enxaménk : [ʻÈ^nxæ̀mé^n'kʻ ~ ʻÈ^nxæ̀mé^nkˉ] 'I like it'

knpaqq : [k$^{\text{Ɨ}}$npáq$^{\dot{E}}$qʻ ~ k$^{\text{Ɨ}}$npáq$^{\dot{E}}$qˉ] 'I'm afraid'

In addition, p and t freely vary between released and nonreleased when occurring before n.[23]

t'apntéx^{W} : [t'æ̀pʻ$^{\text{Ɨ}}$nté^x^{W} ~ t'æ̀pˉnté^x^{W}] 'you shot at him'

notntés : 'nῺ^tʻ$^{\text{Ɨ}}$nté^s ~ 'nῺ^tˉnté^s] 'she put him in . . .'

snamótn : [snæ̀mó^tʻ^{I}n' ~ snæ̀mó^tˉn'] 'chair'

Labialized stops like glottalized stops, are consistently released.

3. Voiceless continuants

These seven consonants remain voiceless throughout their distribution. The articulation of lateral ł is consistently that of a voiceless alveolar fricative with quite noticeable aspiration. Like c, the articulation of s is midway between sibilant and shibilant with slight ideolectal fluctuation. The h phoneme is consistently articulated as an open consonant with a minimum of laryngeal friction.[24] It is phonetically distinguishable from the variants of x and x̣ in that the latter phonemes are always characterized by buccal fricativity, while the articulation of h is never so characterized.

Articulation of x is as follows.

/x/ : [ç] / y—,
: [x] elsewhere.

When this phoneme is palatalized as [ç], the dorsum of the tongue is flat, rather than grooved, and the breath stream procedes through a broad shallow slit.

xoyx : [xó^yç] 'he went'

When the phoneme is actualized as [x], the constriction is made between the back part of the dorsum and an area on the velum behind its juncture with the hard palate.

xeƛ' : [xé^ƛ'] 'it is in line'

In some speakers, the difference between /x/ and /x̣/ is accentuated, since /x/ is articulated with friction alone, while /x̣/ has an additional feature of accompanying uvular trill. This difference is more common with younger speakers.

4. Voiced continuants

In all their occurrences voiced continuants remain voiced, their variants showing presence and absence of glottalization.[25]

/N/ : ['N] / #—, where N = nasal consonant.

[N'] /— X, where X signifies that the only phonemes following N in the utterance are voiceless.

When a stopped onset accompanies a continuant, the air is stopped laryngeally and audibly released with the start of the utterance.[26] Voicing is of shorter duration in this environment than when the stopping is absent.

mamqen : ['mam$^{\dot{E}}$qts$^{\text{Ɨ}}$n'] 'swallow-bird'

mgmen : ['m^{E}gmé^n'] 'safety pin'

xamenks : [xə̀mé^n'ks] 'he likes it'

/w/ : [ẇ'] /— S, where S = stop phoneme or s, and when w is noninitial.

snewt : [sne w't‘] 'wind'

aymews : [‘ə̀ymé^w's] 'holy cross'

Applicable to every voiced continuant (C) is the following rule.

/C/ : [C'] / V— V́,

/— #.

soreslp' : [sῺ^r'é^slp']^{27} 'wood fire'

stałm : [stáł$^{\dot{E}}$m'] 'boat'

ʕan : [ʕä́n'] 'magpie'

topl : [tó^p$^{\text{Ɨ}}$l'] 'spider'

c'war : [ts'$^{\dot{U}}$wár'] 'outdoor fire'

x̣waw : [x̣$^{\dot{U}}$wáw'] 'it dried up'

way : [wáy'] 'greetings!'

paˤ : [pä́ˤ'] 'gray, infinity'

C. Stress

Primary stress is realized with different grades of loudness, just as secondary stress is. Vowel quality accompanies a specific stress phoneme. It is this fact that enables us to categorize the stress of a single syllable utterance as primary. E.g. pot : [pó^tʿ] 'still'. Further, certain disyllabic utterances contain contiguous geminate vowels, e.g. leew 'father', qʷaac 'it's warming up', q'ooc 'he's getting fat'. The vowel quality of both vowels is generally the same in these utterances. And the quality again signifies that the accompanying stress is primary. Thus we have examples of the double occurrence of primary stress in an utterance. However, when contiguous geminate vowels occur, the second is invariably stressed slightly more than the first. But since no such pairs exist where only the stress patterns may be significantly contrasted, we establish two degrees of variants of primary stress calling them respectively loud (l) and reduced loud (rl),[28] illustrated thus:

leew : [l$\overset{rl}{\acute{e}}$^ '$\overset{l}{\acute{e}}$^w'] 'father'

qʷaac : [qʷ$\overset{rl}{\ddot{a}}$ '$\overset{l}{\ddot{a}}$ ts] 'it's warming up'

q'ooc : [q'$\overset{rl}{\acute{o}}$^ '$\overset{l}{\acute{o}}$^ts] 'he's getting fat'

Occasionally an utterance is heard where contiguous geminate consonants both bear secondary stress. In such case the primary stress is elsewhere in the utterance. This secondary stress occurs with vowels having an articulation more centralized than that which appears accompanying primary stress. Again, the second of the contiguous

geminate pair regularly carries slightly heavier stress than the first member of the pair. This leads to the recognition of two allophones of secondary stress, referred to respectively as secondary (s), and reduced secondary (rs), and illustrated thus:

soolménk : [s$\overset{rs}{\grave{\Omega}}$^$\overset{s}{\grave{\Omega}}$^lmé^n'kʻ] 'gun'

t'aatomopél : [t'$\overset{rs}{\grave{æ}}$$\overset{s}{\grave{æ}}$tῺ^mῺ^pé^l'] 'the small car'

np'eex̣án : ['np'$\overset{rs}{\grave{E}}$^ $\overset{s}{\grave{E}}$^x̣án'] 'it is low (in air), i.e. tyre'

For reasons of economy the following system is adopted for showing stress phonemes in phonemic transcription.

1. An utterance written with no stress markers has only primarily stressed vowels. E.g. slax̣t is an abbreviation for /sláx̣t/ 'friend'.
2. When an utterance is written with one or more stress markers, the vowel accompanying the stress marker is primarily stressed, as is a preceding contiguous vowel, if present. E.g. espoós is an abbreviation for /èspóós/ 'my heart'.
3. All other unmarked vowels are secondarily stressed.

Glottalization in Stylish Speech

A popular game among Okanagan speaking children is speech mimicry. It requires an older child to pronounce a word to see if a younger child can repeat it. This practice is continued in adulthood where certain individuals are admired and respected for an ability to speak an elete or stylish form of the language. A feature of this latter language form is an extended use of glottalization. That is, in stylish speech a glottal stop is heard in utterances that have no such glottal stop in normal speech. The full range of this inserted glottal stop is not clear, but the following usage is noted.

Transcription is phonemic.

1. C_1VC_2 --> $^{?}C_1VC_2$, where C_1 = voiced continuant.

   mayxtwéwx --> mayxt$^{?}$wéwx 'they are teaching each other'

   swa^{ʕ} --> s$^{?}$wa^{ʕ} 'cougar'

2. C_1VC_2 --> $C_1V^{?}C_2$, where C_2 = voiceless consonant.

   témos --> témo$^{?}$s 'navel'

   nc'ecn --> nc'e$^{?}$cn 'timber wolf'

   nał --> na$^{?}$ł 'and'

   kałés --> ka$^{?}$łés 'three'

3. $C_1(V)C_2$ --> $C_1(V)C_2{}^{?}$, where C_2 = voiced continuant.

   k^{W}elstn --> k^{W}el$^{?}$stn 'sweat house'

   slaẋt --> sl$^{?}$aẋt 'friend'

These rules are not consistently applied; and whether or not a hierarchy of application is involved is not known. This type of glottalization is not accounted for elsewhere in our description.

A problem posed by the above usage is how to distinguish the D$^{?}$- 'diminutive' morpheme in this form of speech. For example, 'school teacher', sox^{W}man$^{?}$áyam, could be analyzed in two ways.

1. sox^{W} + IT + may + am (one who - iterative - teach - indefinite object) --> sox^{W}mamáyam + the stylistic glottal stop --> sox^{W}man$^{?}$áyam

2. sox^{W} + IT + D$^{?}$ + may + am (one who - iterative - diminutive - teach - indefinite object) --> sox^{W}man$^{?}$áyam

The difficulty can partly be resolved through reference to an informant who makes minimal use of such stylish speech. When the glottal stop is heard in this speaker's pronunciation, we record the 'diminutive' morpheme.

We feel, however, that there is no clear-cut dividing line between the use of the 'diminutive' morpheme and stylistic glottalization. Speakers frequently use diminution to express modesty, politeness, and deference; while a speaker who uses stylish language is consciously attempting to impress his listeners.

FOOTNOTES

[1] Reichard 1958:298 states that Coeur d'Alene r's 'all occur only in stems, none in affixes or syntactic elements . . . it occurs only medially and finally in stems, never initially'. Vogt 1940a: 12 noted 'the total absence of r-sounds' in Kalispel, a statement reiterated in Vogt 1940a:17-19 and Reichard 1958:297. Kinkade 1967: 229, however, obtained an r-l minimal pair from Vogt's Kalispel informant's father. Okanagan ʕ can occur utterance initially and utterance finally, but only when at the same time a stem morpheme appears in that position. Such distribution is thus morphologically subordinated--a condition set out in the first part of the following statement: '. . . the phoneme can only be defined . . . in reference to the fact that in some way it is related to morphemes, and the morpheme can only be defined in reference to the fact that it is in some way related to phonemes . . . .' Pike 1958:368.

[2] Okanagan appears not to be equatable to Spokane where '/ʕ/ corresponds to [ɒ]', or Kalispel where it corresponds to 'a slightly backed [a]' according to Kinkade 1967:232. Rather it is comparable to Coeur d'Alene where pharyngealization is consonantal: Coeur d' Alene Rɛy 'angry' and Rɛc 'tie' (Reichard's symbols) are cognates respectively of Okanagan ʕay and ʕac. Kinkade 1967:229 finds Okanagan pharyngealization 'difficult to hear'. The Head of the Lake dialect typically illustrates this assertion. The following terms illustrated a broader occurrence of the pharyngeal consonant in the speech of my Penticton informants. /spteʕxʷ/ 'saliva', /st'eʕó/ 'grass', /cleʕxʷp't/ 'he rushed out', /ʕoxtélat/ 'newborn'. My Head of the Lake informants pronounce these words without the pharyngeal consonant. Stated geographically, ʕ has the wider distribution in the Penticton dialect some 90 miles south of the Head of the Lake dialect. Further south still, i.e. below the 49th Parallel, pharyngealization has a still wider occurrence. While ʕ and ʕ' are allophonic variants in the Canadian dialects, they have phonemic status in Methow, Southern Okanagan, and Colville. In addition, these three dialects have as phonemes ʕʷ and ʕʷ'. Such labialized forms are not heard in the Canadian dialects. Examples from Southern Okanagan are: nsəʕʷ'ə́m 'drain', k'əlcəʕʷəmén 'fringes', sk'áʕʷm 'pray', máʕʷəm 'break', qʷáʕʷ 'drunk', ləʕʷ'ékstən 'thimble', xʷʕʷə́lx 'fox', səʕʷəsəʕʷás 'ruffed grouse', paʕʷ'óstən 'face powder', cáʕʷlx 'take a bath'. The terms were supplied by M. Dale Kinkade in a personal letter, 1967, and are 'roughly phonemic'. When these terms appear in the vocabularies of my Canadian informants they are pronounced with the pharyngeals but without the labialization. If we assume the cognacy of the following terms, the variations in labialization in other consonants are worth noting. BREAST: Coeur d'Alene -ilgʷes, Thompson -algas, Okanagan -aqs; EYE: Bella Coola -aqʷ's, Thompson -aqs,

Okanagan -os; FAMILY: Kalispel -aq^{W}su, Thompson -aksus, Okanagan -snawselx^{W}; HEAD: Bella Coola -i·x^{W}, Squamish -q^{W}, Thompson -uq, Okanagan -aqn; LONG: Coeur d'Alene -alq^{W}, Thompson -alq, Okanagan -aqs. The glottalization accompanying the pharyngealization in Southern Okanagan identifies an independent phoneme. Such glottalization is present in certain Penticton and Head of the Lake forms, but is not noted phonemically because it is predictable. From this it would appear that pharyngealization has all but disappeared historically in Head of the Lake.

[3] Compare Reichard 1938:632.

[4] Gleason 1961:337 reports a clustering of five consonants for Coeur d'Alene and seven for Bella Coola. The latter language has utterances without vowel phonemes, see page 51.

[5] These words, listed in the Appendix, contain 992 segmental occurrences. It is not suggested that a frequency count made with a different corpus would produce the same result. When the count was repeated with an Okanagan text, the vowel o again occurred least frequently of the vowels, x̣ and h were again uncommon, supporting the statements by Vogt and Swadesh quoted in footnote 24. The labialized consonants occurred less frequently than their nonlabialized counterparts. This agrees with Reichard 1960:50, 'It has been noted that the labialized consonants are not numerous in any one Salish language'. On the other hand, s in the text was less common than t and n. Since initial s is common in nouns, and the text included fewer nouns proportionally than the word list, this difference is understandable.

[6] The examples quoted below are not to be read as any kind of 'proof of phonemicity' of the segments involved. The contrasts used make it obvious that minimal pairs of utterances are very few. Further, the minimal morpheme pair procedure for the establishment of Okanagan phonemes is unreliable, since ablaut is a morphological feature; see Morphophonemics.

[7] We note the presence of g in a number of terms connoting 'long, pointed': cngépolawx 'upright object in ground, e.g. fencepost', cngopk^{W} 'upright object in water', k'łnmgop 'hunting knife', ekslgám 'I will sting him', eksmgám 'I will pin it'.

[8] In some of the examples glottalization accompanies a plural or diminutive form, see discussion of Class 10 chameleons below. Its occurrence is not predictable and is phonemic. Other investigators have remarked on glottalization. E.g. Vogt 1940a:64 notes that glottalization is used in Kalispel to express diminution; Reichard 1959:251 comments that 'In Coeur d'Alene the glottal stop and glottalized consonants are basic in vocabulary'. See also Reichard 1958:293 and Swadesh 1952:240.

[9] Hockett 1955:57.

[10] The syllable in Okanagan is not a phonemic unit; it is rather a structural one which enables us to clarify Okanagan pronunciation. Snyder 1968:19 notes that Southern Puget Sound Salish likewise 'has no syllabic structure at the phonemic level'; and Newman 1947:132 says the same of Bella Coola. We use the syllable as a point of reference for prediction of pepet vowel occurrence.

[11] Term ascribed to Franz Boas in Swadesh 1952:235. Swadesh himself calls it 'the interconsonantic murmur' and 'the false vowel: a vocalic murmur between consonants in clusters, whose timbre is much influenced by the neighbouring consonants'. Reichard 1938: 533 suggests a 'purely mechanical' vowel after certain voiced consonants in Coeur d'Alene. Snyder 1968:15 discusses the phenomenon under Juncture.

[12] Heffner 1960:86-7.

[13] Beyond this, Valdman comments, 'It is important to remember that mute e is not a sound feature, but a type of grammatical behaviour'. Valdman et al. 1964:238. Such is not the case with the pepet vowel.

[14] Symbols and description taken from Bloch and Trager 1942:22. The rounding of ^{U} is minimal.

[15] See note on variation of t in 2e below, under Consonant Allophones.

[16] This coloration is more noticeable with female speakers than with males, particularly in careful citation speech. A suggested system of notation follows, but is not applied, since it is felt that such coloration is ideolectal.

Primary Stressed Vowel	Pepet Vowels		
e	$\underset{\leftarrow}{\text{Ɨ}}$	$\underset{\leftarrow}{\dot{\mathrm{E}}}$	$\underset{\leftarrow}{\dot{\mathrm{U}}}$
a	Ɨ↓	$\dot{\mathrm{E}}$↓	$\dot{\mathrm{U}}$↓
o	$\underset{\rightarrow}{\text{Ɨ}}$	$\underset{\rightarrow}{\dot{\mathrm{E}}}$	$\underset{\rightarrow}{\dot{\mathrm{U}}}$

Relocation of pepet vowel position in presence of primary stressed vowel.

[17] Penticton /e/ has a higher articulation than Vernon /e/. In the former dialect, the onset of initial /e/ is more of a y-glide.

[18] Reichard 1938:534 and 1958:299 notes nonphonemic length in

other Salish languages. Snyder 1968:8 records its rhetorical use in Southern Puget Sound.

[19] Vowel symbols based on those given by Bloch and Trager 1942: 22.

[20] Snyder 1968:4,5 notes a similar glide under somewhat similar circumstances in Southern Puget Sound.

[21] In Kalispel /s/, /š/, /c/, and /č/ are four different phonemes, but there are occasional s~š and c~č fluctuations without meaning change. Vogt 1940b:18 suggests that a neighbouring s-sound is the conditioning factor.

[22] Vogt 1940b:13 notes in Kalispel 'the labial element of x^{w} is lost before the rounded vowels'.

[23] The latter articulation appears to be more frequent.

[24] Vogt 1940b:13 found Kalispel h 'weak initially', and 'never recorded in final position'. On Salish h Swadesh 1952:236 noted: 'The glottal spirant h is rare . . . There is no Salish language, with the exception of Tillamook, in which h is a common phoneme'. See also Newman 1947:131. Later, Reichard 1958:298 termed h 'important, but infrequent in Coeur d'Alene and Kalispel'.

[25] In the stop series of phonemes presence and absence of glottalization differentiates phonemes, while presence and absence of voicing does not. In the continuant series the opposite obtains: glottalization is subphonemic while presence and absence of voicing signals difference of phoneme.

[26] A stopped beginning is used as a distinctive mark of semantic difference in Nootka. Sapir 1923:149 and Sapir 1938:249 et passim. In the Penticton dialect of Okanagan, word initial nasal consonants are not always preglottalized as in the Head of the Lake dialect. Head of the Lake (HL) 'also' is /néx^{w}/, as is Penticton (P) 'also'. But 'and' is /méł/ in HL, /ʔméł/ in P; 'later' is /nénwès/ in HL, /ʔnénwès/ in P.

[27] Okanagan r is a voiced apical flap when postglottalized, otherwise a voiced apical double flap. Vogt 1940a:10 characterizes Spokane phoneme r as 'an apical r, strongly trilled and strongly voiced'.

[28] Terminology for variants of primary and secondary stress adapted from Bloch and Trager 1942:48.

CHAPTER THREE

MORPHOLOGY

Introduction

The parts of speech, noun, verb, and particle,[1] commonly appear in grammars of American Indian languages.[2] Such categories can be observed in Okanagan, and can be given the following descriptions.

A noun is an utterance introduced by a nominalizing prefix. Okanagan has five such prefixes, a common one being s-. Thus, slax̣t 'friend' can be considered a noun.

A verb is an utterance in which a verbalizer is present. Okanagan has eleven verbalizers, one being sc- 'continuative aspect'. Thus, scxoyx 'he is going' can be considered a verb.

A particle is an utterance consisting of a stem alone, that never occurs with affixation. The form lot 'no' can be considered a particle.

A description of Okanagan presented in terms of these three parts of speech, however, could give rise to a number of problems. For while a large number of utterances could be definitively characterized according to the descriptions just given, a large number of other utterances could be called nouns or verbs only on the basis of markers that we assume to be covertly present.[3] In addition, some utterances introduced by a verbalizer have a nominalizer incorporated into the stem, while other utterances introduced by a nominalizer include a verbalizer in the stem. Bloomfield remarked that

> It is impossible to set up a fully consistent scheme of parts of speech,[4] because the word classes overlap and cross each other.[4]

This opinion about the surface structure of English can be equally well expressed about Okanagan in the framework of the IP model adopted in the present study. For example, in the absence of the syntactic restrictions of context, leew can mean 'father' (noun), or 'he is a father' (verb), overt affixation being absent.[5] An analogical situation exists with slax̣t 'friend'. This form bears the prefix s- 'nominalizer', and can be categorized as noun. But just as leew can mean 'he is a father', so slax̣t can mean 'he is a friend'.

The terms noun and verb play no central role in the present description, as indicated in the next paragraph. They are, therefore, not formally or rigorously defined. The notions, however, are familiar ones and are occasionally referred to, but only loosely, in the discussion below.

The morphological description is not presented in terms of parts of speech. Instead, Okanagan utterances are examined in terms of positional morpheme classes. These classes are somewhat comparable to the parts of speech found in traditional grammar, in that they are the relatively small set of basic classes to which all meaningful elements are assigned and in terms of which sentence structure is specified. Unlike the parts of speech in traditional grammar, however, they are not presumed to be a fixed or universal set with constant semantic properties;[6] their major constant is a distributional one: their position is stable with respect to the position of other

classes, the semantic label attached to them being a convenient notation.

This procedure, too, is not without shortcomings. One class, the stem, includes not only morphemes that occur in no other class, including particles, but also includes potentially every other morpheme in the language; stem compounding is a feature of the language. This characteristic tends sometimes to conceal the rigid morphemic ordering system that is present.

Okanagan has twelve morpheme classes of which seven are prefixes and four are suffixes. They are numbered consecutively and named. The twelve classes are as follows.

Morpheme Class 1. Emphatic
Morpheme Class 2. Pronoun
Morpheme Class 3. Nominalizer
Morpheme Class 4. Adverb
Morpheme Class 5. Verbalizer
Morpheme Class 6. Preposition-Adverb
Morpheme Class 7. Nominal
Morpheme Class 8. Stem
Morpheme Class 9. Adverb
Morpheme Class 10. Nominal-Locative
Morpheme Class 11. Verbalizer
Morpheme Class 12. Pronoun[7]

Except for morpheme Class 8, all classes are affixes: Classes 1 to 7 being prefixes, and Classes 9 to 12 suffixes. The number of constituent morphemes in each class varies greatly. In general, the suffixes far outnumber the prefixes.

Not every morpheme class is overtly represented in every utterance, nor is the number of individual class representatives always restricted to one per utterance. There are variations here. There is no variation, however, in the matter of relative morpheme class location in the utterance.

Within the parameters of morpheme class, word formation is effected by affixation, reduplication, glottalization, and encorporation in varying combinations. Some of the morphemes involved are bound, while others are free.

Introductory Syntactic Sketch

The following syntactic outline is introduced in order to illustrate the essential features present in Okanagan constructions.

There are ten basic syntactic patterns, from which a large number of subpatterms are constructed. Included in the basic patterns, listed below, are the following function classes: subject of a verb, subjective complement, direct object of a verb, indirect object of a verb, noun stem and verb stem. The transformation rules on pages 78-9 rearrange certain syntactic elements into the morpheme position classes which form the basis of the morphological description.

Subpatterns consist mainly of additions and rearrangement within the basic pattern. For example, as an addition the proclitic e- can be prefixed to each of the first eight patterns. The location of other additions within the patterns depends on the morpheme position classes of the added elements. Thus, if the additional morpheme is a Preposition-Adverb, it follows any verbalizing prefix present, and precedes any nominal prefix present.

Rearrangements of syntactic elements are described by means of transformation rules. The number of these rules, for economy, is balanced against the number of basic patterns chosen. Two basic patterns are established for Unrestricted Transitive not only to avoid an additional transformation rule, but also to avoid a set of morphophonemic rules to indicate phonological shapes for the two sets of pronouns involved. These rules would apply only to those pronouns covered by this particular transformation, and would be reflected nowhere else in the language.

Worth noting is the fact that when two pronouns are present in an utterance, the object always precedes the subject; but verb stem and pronoun order vary from one pattern to another. Aspect is present in every verb form, but tense is not. Pronoun number is marked with an additional morpheme for third person plural, but not with first and second persons. Agreement between pronoun and verb, noted for many European languages, is not present in Okanagan.

Basic Syntactic Patterns

The basic syntactic patterns occurring in Okanagan are as follows.

1. (Noun) NStem
2. (Noun) $\mathrm{Nom} + \mathrm{NStem}$
3. (Verbal Noun) $\mathrm{Pr}_a + \mathrm{NStem}$
4. (Possessed Verbal Noun) $\mathrm{Pr}_d + \mathrm{Pr}_b + \mathrm{NStem}$
5. (Intransitive Verb) $\mathrm{Pr}_a + \mathrm{As} + \mathrm{VStem} + \mathrm{T}$
6. (Restricted Transitive) $\mathrm{Pr}_{a/b} + \mathrm{As} + \mathrm{VStem} + \mathrm{am}$
7. (Unrestricted Transitive) $\mathrm{Pr}_f + \mathrm{Pr}_b + \mathrm{As} + \mathrm{VStem} + \mathrm{am}$
8. (Unrestricted Transitive) $\mathrm{VStem} + \mathrm{As}_1 + \mathrm{Pr}_e + \mathrm{Pr}_c$
9. (Imperative) $\mathrm{Pr}_e + \mathrm{VStem} + \mathrm{an} + \mathrm{Pr}_g$
10. (Particle) Stem

Abbreviations

am:	'indefinite object'	NStem:	noun stem
an:	'locative'	Pr:	pronoun
As:	aspect	T:	Tense
Nom:	Nominalizer	VStem:	verb stem

The subscript letters following Pr refer to the Pronoun Orders listed below.

Pronoun Orders

In any specific utterance, choice of pronoun from among the morphemes listed below varies, depending on the particular syntactic pattern being used. Where specifically plural morphemes are not noted, a single morpheme has both singular and plural reference. Morphemes listed under column g are all second person imperatives.

Person	a	b	c	d	e	f	g
1	kn-	en-	-ten, -n	ko-	ko-	ko-	-t
2	k^W-	an-	-tex^W	k^W-	-tom, -ce	k^W-	-te
3		-s	-tem, -s		-tem		-tek^W
1p	ko-	-tt	-tem, -t				-tek^{W}e
2p	p-	-mp	-tep	p-	-tom, -łolm	p-	-x
							-we

Syntactic Subpatterns

Transformation Rules

Rule 1. Obligatory. Relocation of Nominalizing Suffix

Basic Pattern 2. Structural Description: $\underset{1}{\text{Nom}}, \underset{2}{\text{NStem}}$

Structural Change: 1, 2 ---> 2, 1, when 1 = Class 10 morpheme.

This rule is introduced into the description to avoid an additional basic noun pattern with a nominalizing suffix.

Rule 2. Obligatory. Relocation of Pronoun Suffix

Basic Patterns 4, 6 and 7. Structural Description

$$\begin{array}{cccc} X, & Pr_b, & Y, & \left\{ \begin{array}{l} \text{NStem} \\ \text{VStem} + am \end{array} \right\} \\ 1 & 2 & 3 & 4 \end{array}$$

Structural Change: 1, 2, 3, 4 $\dashrightarrow$ 1, 3, 4, 2, when 2 = third person or plurality.

Since Pronoun Order b is composed of both prefixes and suffixes, either a transformation rule or an additional basic pattern is required. The first alternative is chosen; and the need for an additional pronoun order is obviated. Back-shifting the suffixes is preferred to front shifting the prefixes, so as to avoid an additional suffixal unit in Basic Pattern 6.

Rule 3. Obligatory. Relocation of Pronoun Prefix

Basic Pattern 8. Structural Description: $\begin{array}{ccc} \text{VStem}, & \text{As}, & Pr_e \\ 1 & 2 & 3 \end{array}$

Structural Change: 1, 2, 3 $\dashrightarrow$ 3, 1, 2, when 3 = first person.

With this rule, an additional basic pattern is avoided for transitive verbs in which first person is the only object pronoun appearing.

Rule 4. Obligatory. Deletion of elements from intransitive imperative Constructions

Basic Pattern 9. Structural Description: $\begin{array}{cccc} Pr_e, & \text{VStem}, & an, & Pr_g \\ 1 & 2 & 3 & 4 \end{array}$

Structural Change: 1, 3 $\dashrightarrow$ null, when 4 = 2pers -x or -we.

The following rules add the derivational morphemes which constitute Classes 1, 4, 6, 7, 9 and 10. Rules 5-8, which introduce prefixes, can be applied before or after Rules 9 and 10, which introduce suffixes. Otherwise the rules are applied in order. The numbers in the rules refer to members of morpheme classes listed in the Appendix. Rules 7, 8, and 10 can be applied twice in the derivation of a given sentence, the remainder only once each.

Rule 5. Optional. Introduction of an emphatic prefix (Class 1)

2 ---> 1 + 2, where 2 = the morpheme with the lowest class number (i.e. 2, 5, or 8).

Rule 6. Optional. Introduction of an adverbial prefix (Class 4)

5 ---> 4 + 5, where 5 = the morpheme with the lower class number (i.e. 5 or 8).

Rule 7. Optional. Introduction of a preposition-adverb (Class 6)

8 ---> 6 + 8.

Rule 8. Optional. Introduction of a nominal prefix (Class 7)

8 ---> 7 + 8.

Rule 9. Optional. Introduction of an adverbial suffix (Class 9)

8 ---> 8 + 9.

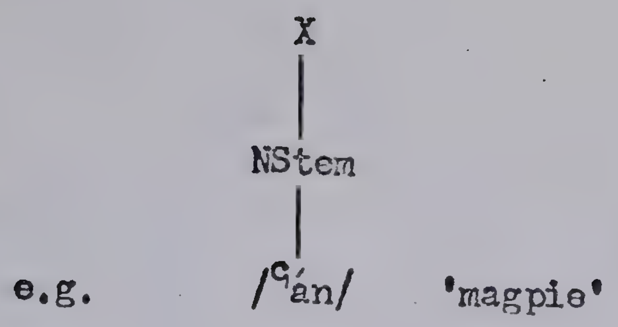
Rule 10. Optional. Introduction of a nominal-locative suffix (Class 10)

8 ---> 8 + 10, where 8 = the morpheme with the higher class number: 8 or 9.

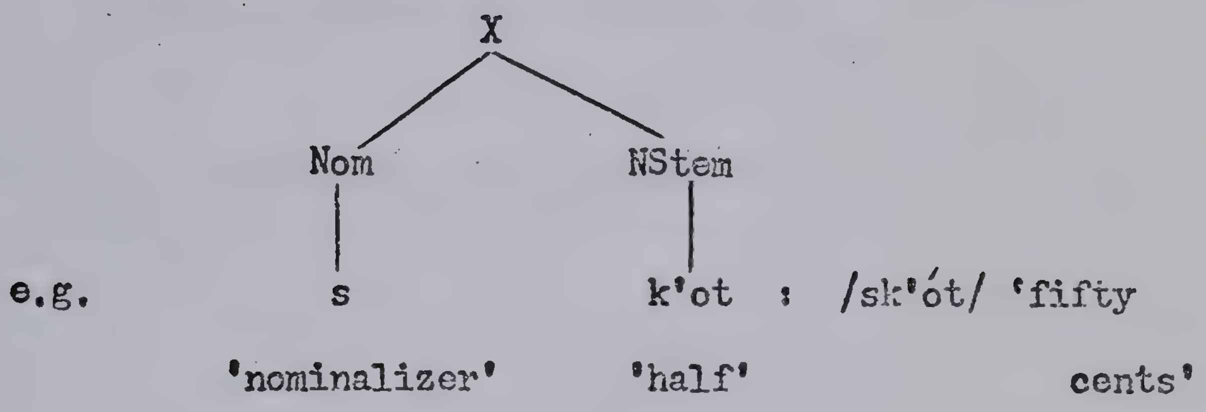
Examples Given X, a free utterance.

The presence of diagonals indicates allomorphs: their absence indicates base forms.

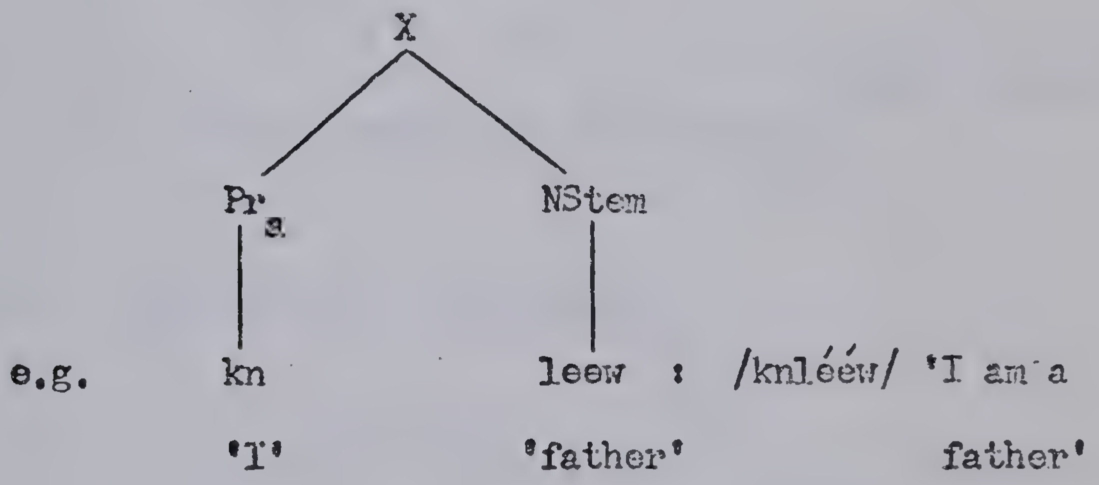
1. Basic Pattern 1: Noun



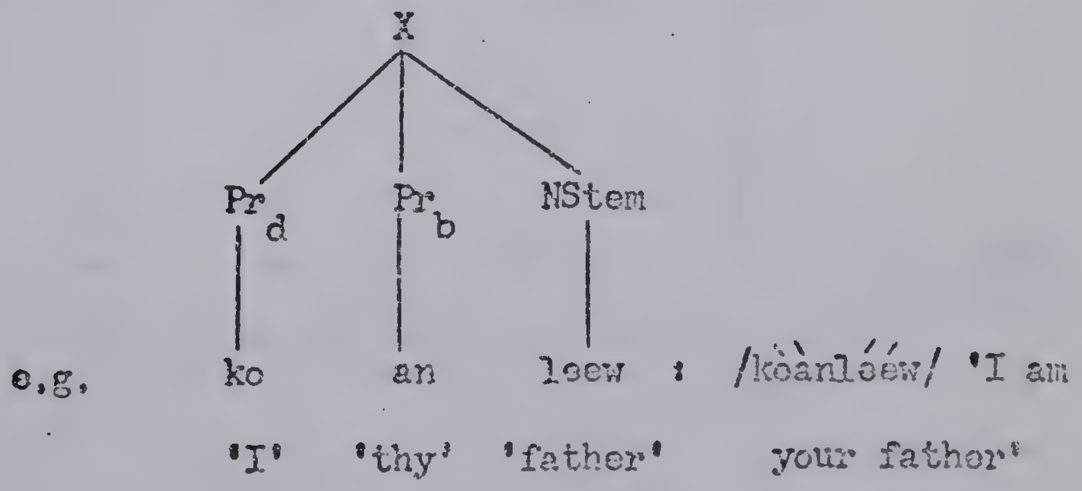
2. Basic Pattern 2. Noun



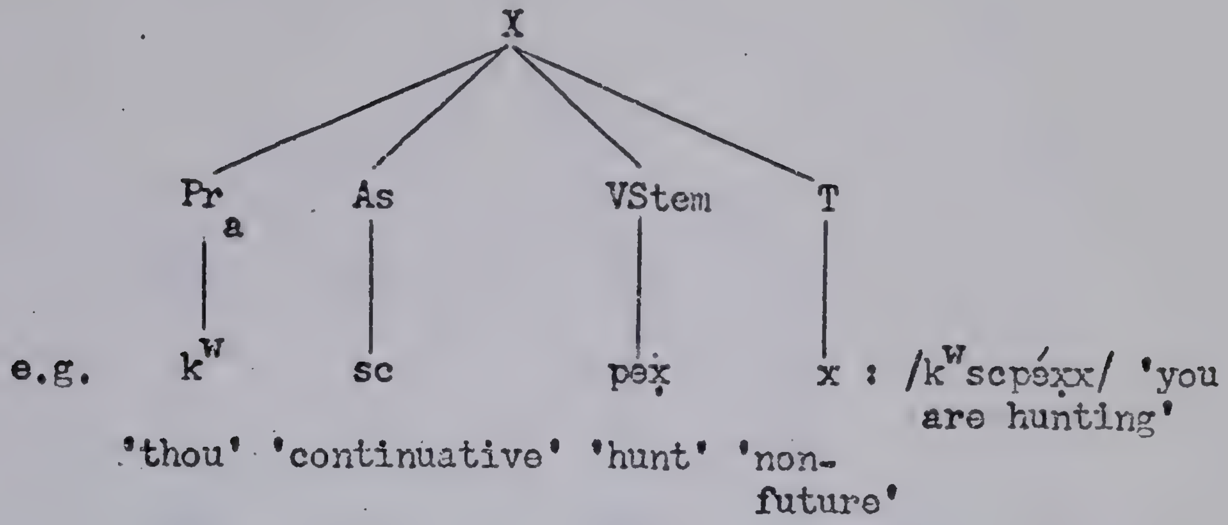
3. Basic Pattern 3. (Verbal Noun)



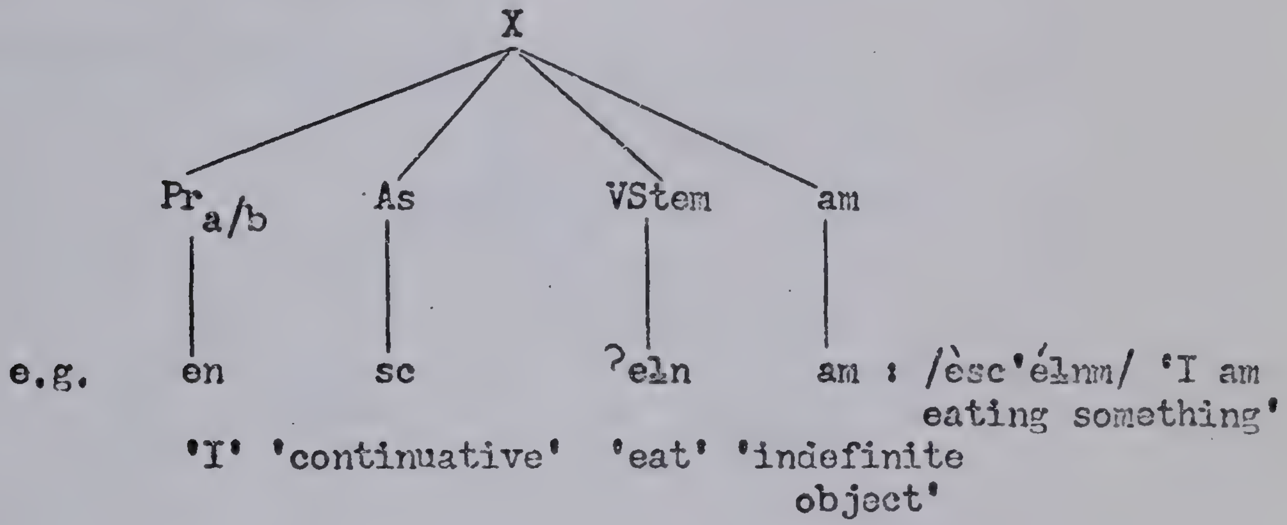
4. Basic Pattern 4: (Possessed Verbal Noun)



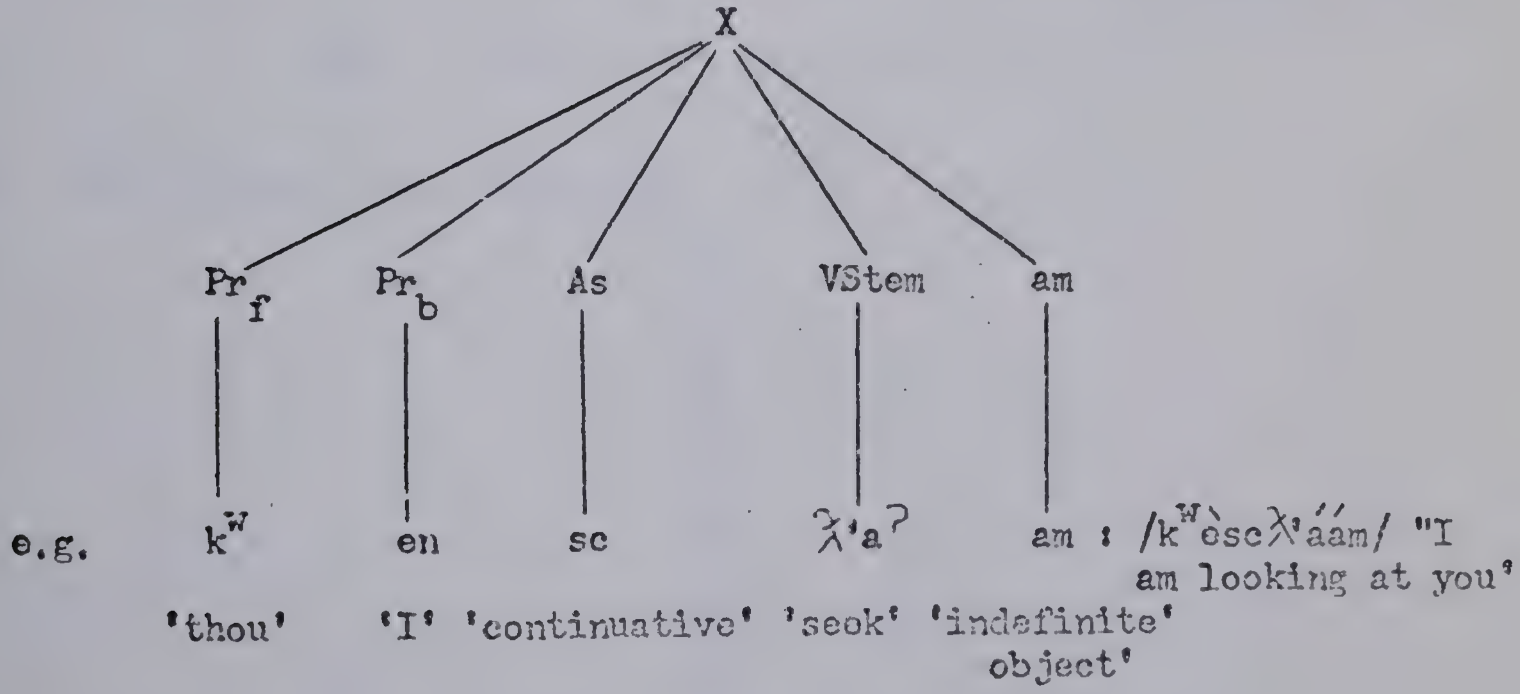
5. Basic Pattern 5: (Intransitive Verb)



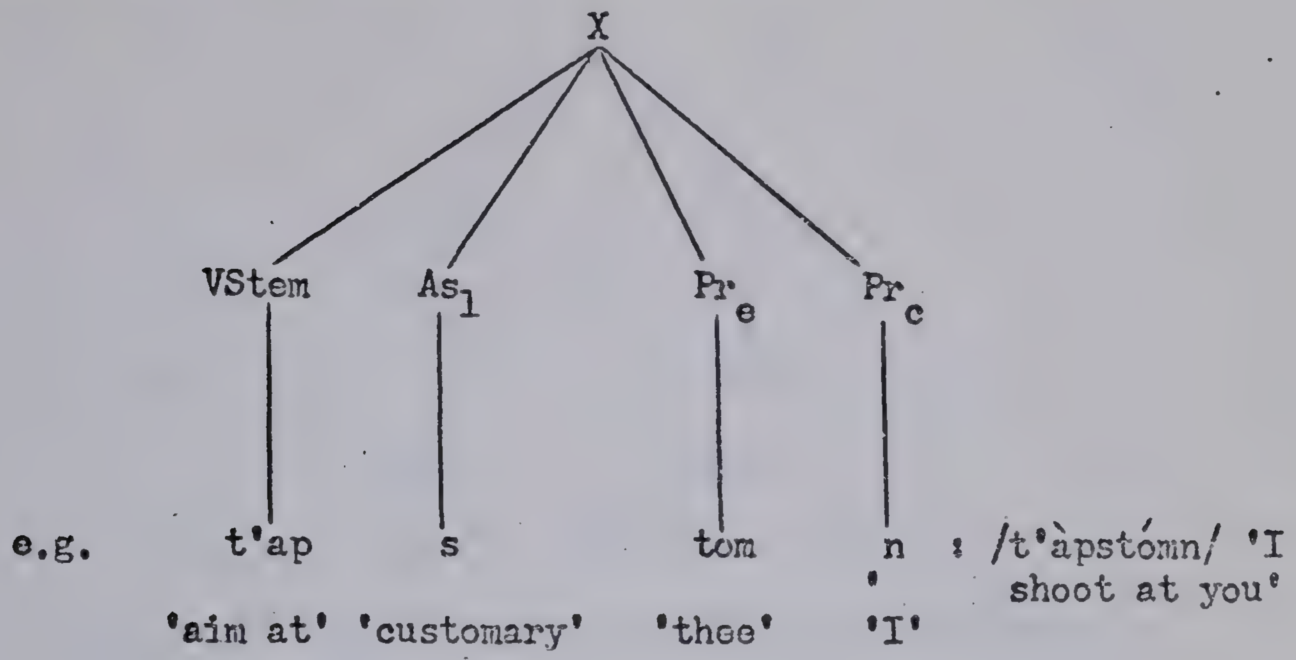
6. Basic Pattern 6: (Restricted Transitive)



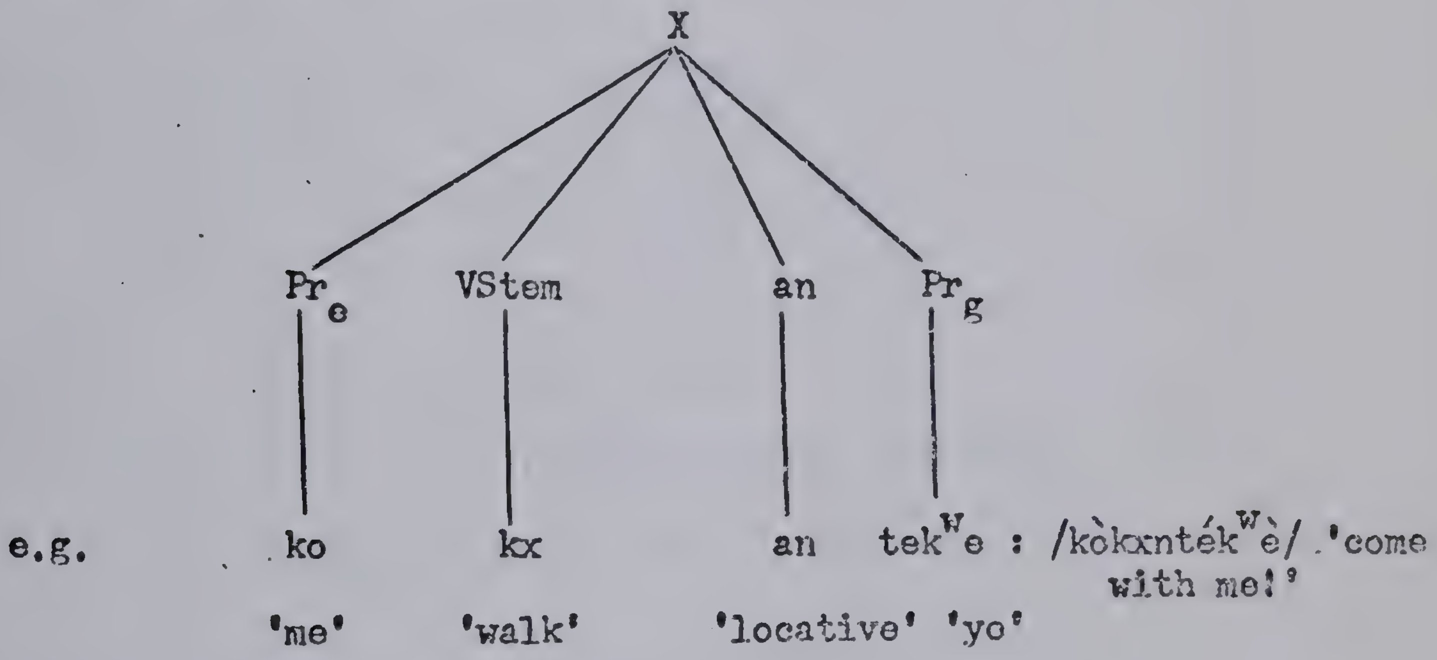
7. Basic Pattern 7: (Unrestricted Transitive)



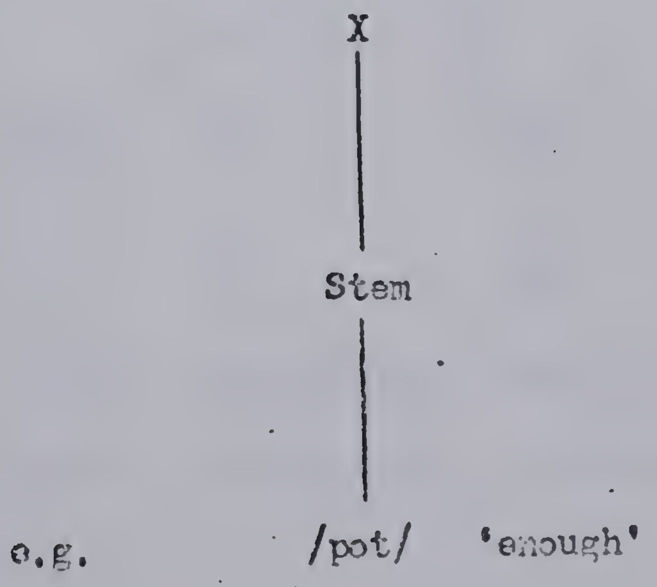
8. Basic Pattern 8: (Unrestricted Transitive)



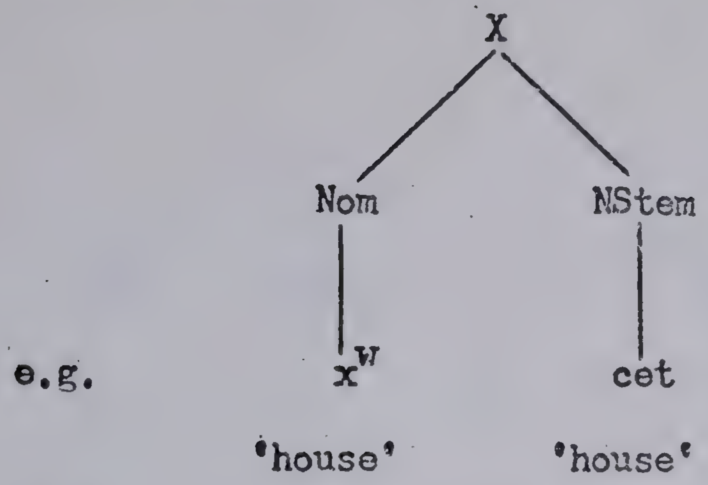
9. Basic Pattern 9: (Imperative)



10. Basic Pattern 10: (Particle)



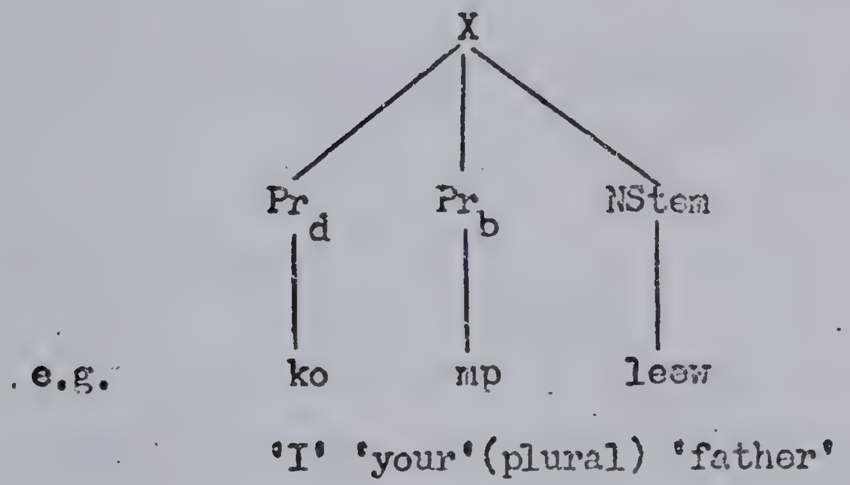
11. Basic Pattern 2: (Noun)



T Rule 1 : cet-xʷ : /cétxʷ/ 'house'

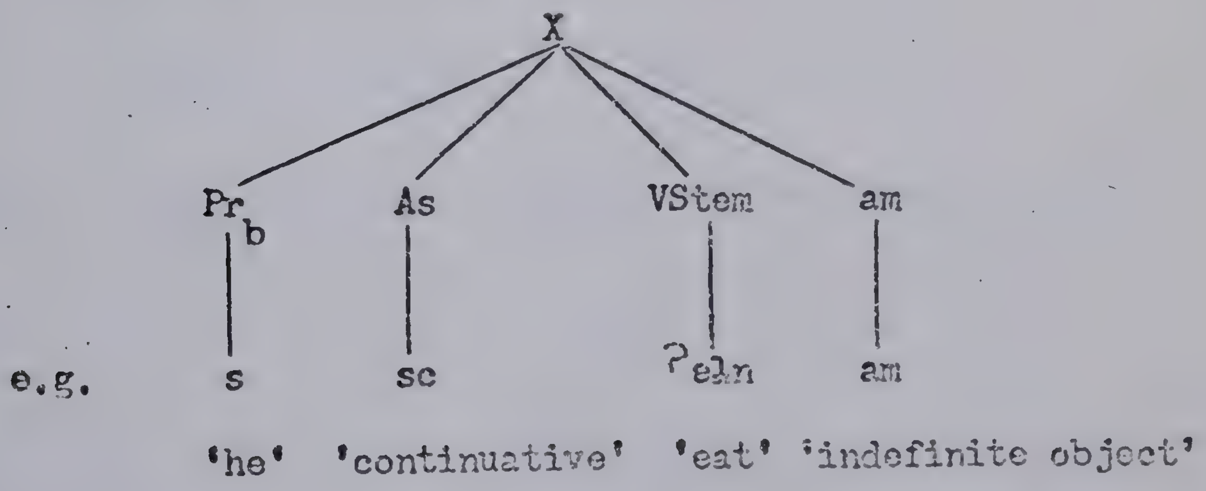
In the Appendix, -xʷ 'house' is listed as a Class 10 morpheme.

12. Basic Pattern 4: (Possessed Verbal Noun)



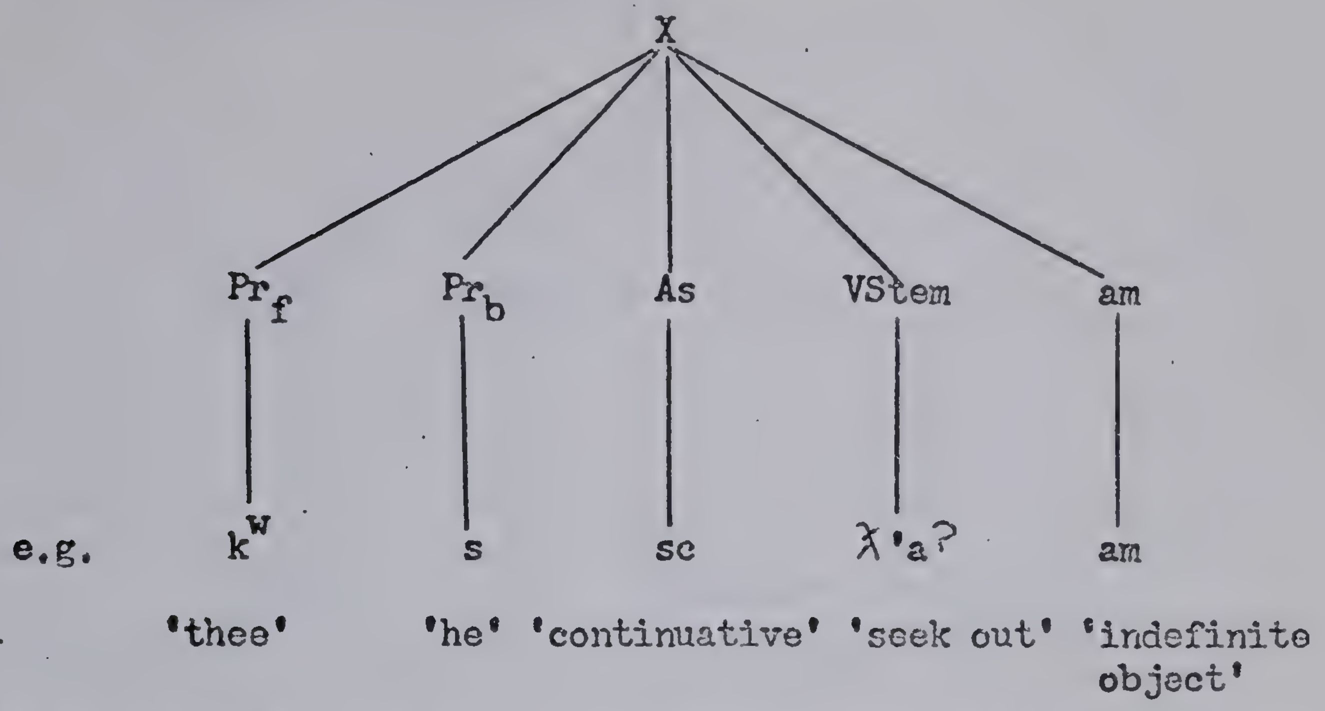
T Rule 2: ko-leew-mp : /kòléèwmp/ 'I am your father'

13. Basic Pattern 6: (Restricted Transitive)



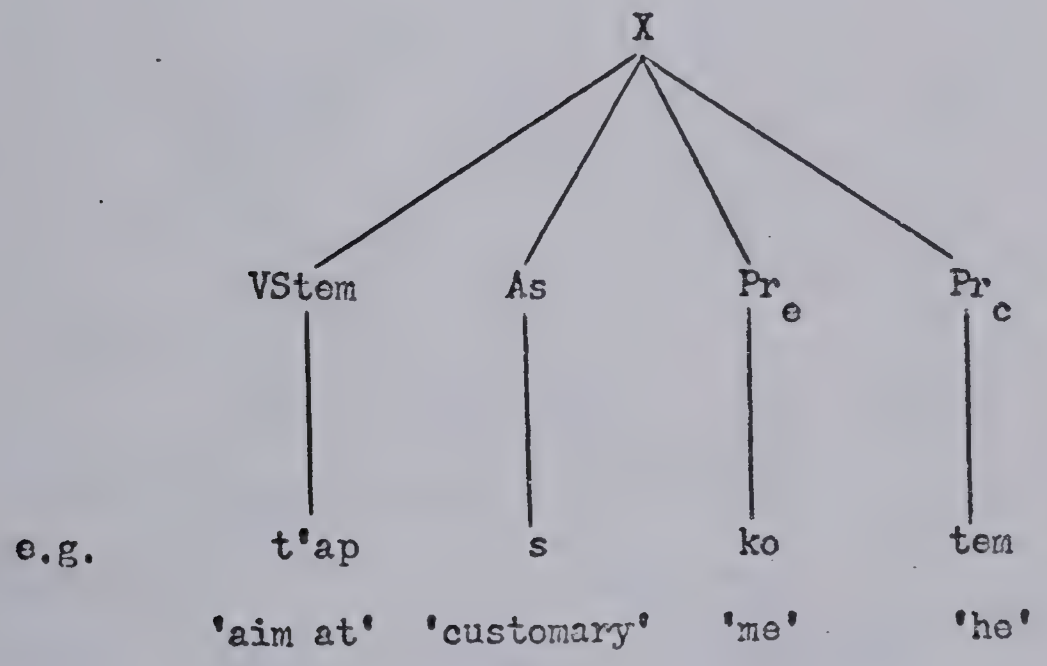
T Rule 2: sc-ʔeɬn-am-s : /sc'éɬnms/ 'he is eating something'

14. Basic Pattern 7: (Unrestricted Transitive)



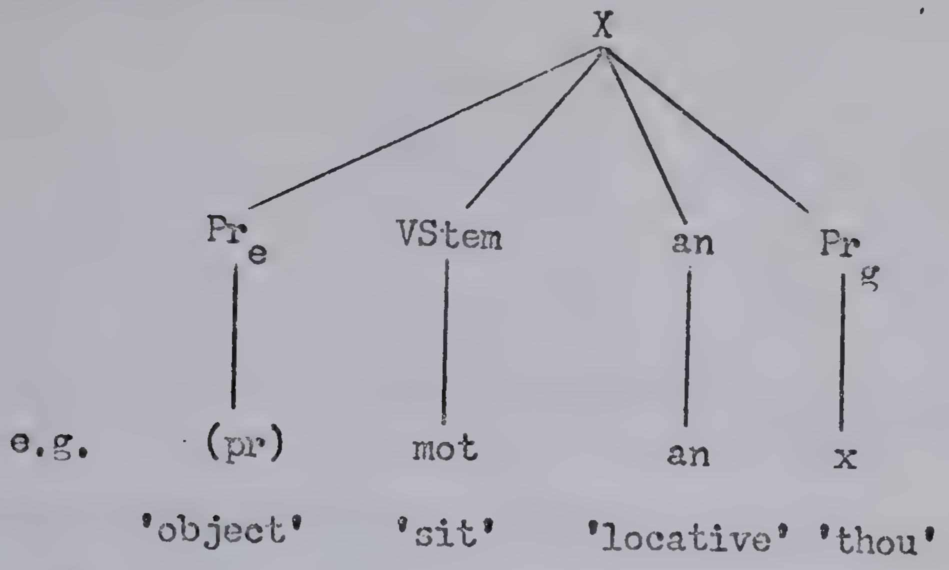
T Rule 2: k^W-sc-ƛ'aʔ-am-s : /k^Wscƛ'áams/ 'he is looking for you'

15. Basic Pattern 8: (Unrestricted Transitive)



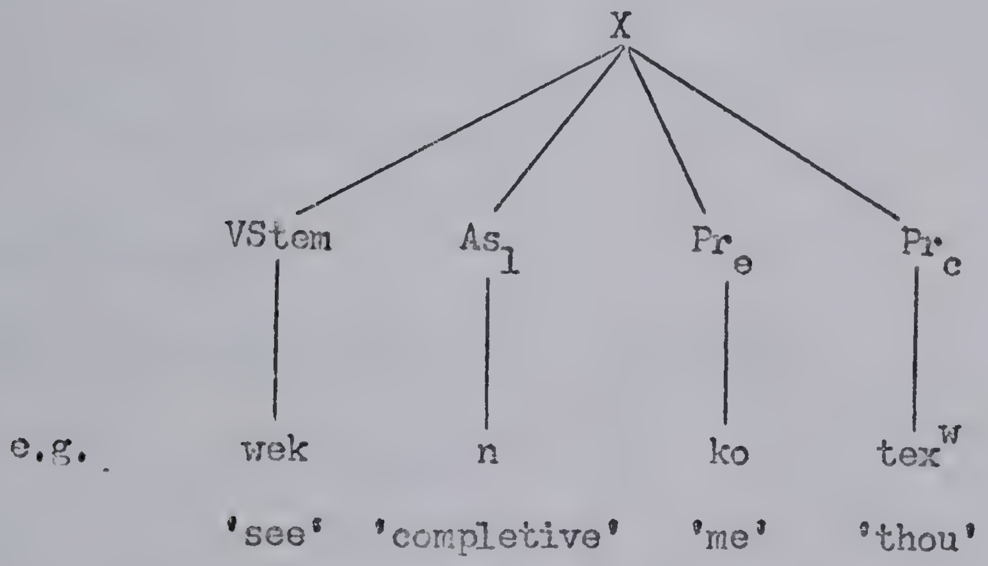
T Rule 3: ko-t'ap-s-tem : /kòt'àpstém/ 'he shoots at me'

16. Basic Pattern 9: (Imperative)



T Rule 4: mot-x : /mótx/ 'sit down!'

17. Basic Pattern 8: (Unrestricted Transitive)



T Rule 3: ko-wek-n-tex^W : /kòwékntx^W/

Classes: 2 8 11 12 'you saw me'

Rule 5: me-ko-wek-n-tex^W : /mèkòwékntx^W/

Classes: 1 2 8 11 12 'you must see me'

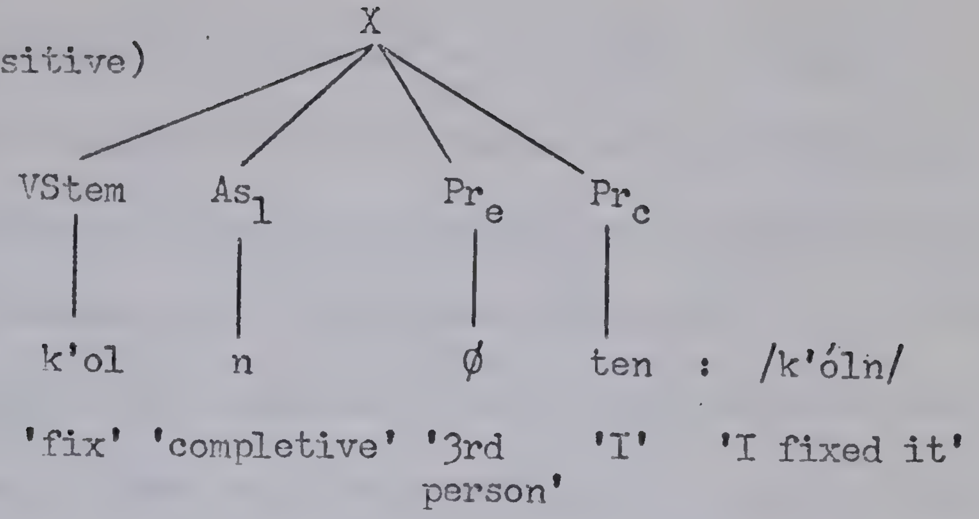
Rule 6: me-ko-la-wek-n-tex^W : /mèkòlwékntx^W/

Classes: 1 2 4 8 11 12 '(if) you must see me'

In the Appendix, me- 'obligation' and la- 'subordinate' are respectively listed as Class 1 and Class 4 morphemes.

18. Basic Pattern 8:

(Unrestricted Transitive)



Rule 9: k'ol-xt-n-ten : /k'ólxtn/

Classes: 8 9 11 12 'I fixed it for him'

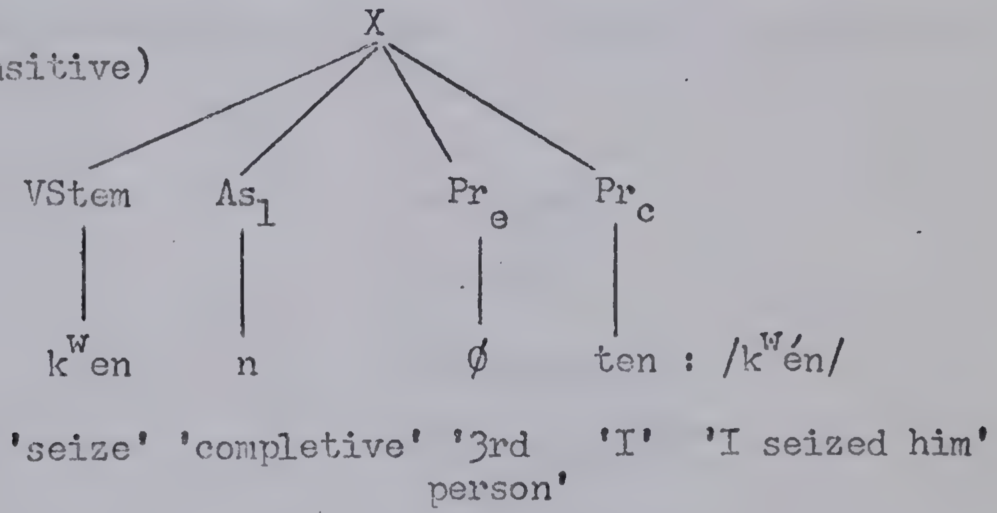
Rule 8: po-k'ol-xt-n-ten : /pòk'ólxtn/

Classes: 7 8 9 11 12 'I fixed it for his wife'

In the Appendix -xt 'dative' and po- 'spouse' are respectively listed as Class 9 and Class 7 morphemes.

19. Basic Pattern 8:

(Unrestricted Transitive)



Rule 7: t-k^{w}en-n-ten : /tk^{w}én/

Classes: 6 8 11 12 'I seized him there'

Rule 10: t-k^{w}en-ops-n-ten : /tk^{w}énpsn/

Classes: 6 8 10 11 12 'I seized him by the tail'

In the Appendix, t- 'location' and -ops 'tail' are respectively listed as Class 6 and Class 10 morphemes.

THE STEM

Every Okanagan utterance consists of a stem with or without affixation. The stem is composed of one or more roots. In the context of morpheme position classes, stem elements are considered Class 8 morphemes. This is because there are seven classes of prefixes that appear in varying combinations, but always in the same relative sequence, before the stem. There are, incidentally, four other classes, suffixes, that follow the stem. All these classes are listed in the Appendix together with constituent morphemes.

Alone of all the morpheme classes, Class 8 is represented in every Okanagan utterance. A root is the nucleus of every word,[8] the minimal irreducible base.[9]

I. Canonical Shape

Okanagan roots vary in canonical shape. A common occurrence is CVC.

p'ex^{w}	'bright'[10]	kec	'come'
p'om	'brown'	xoy	'go'
meƛ'	'paint'	ˁan	'magpie'
t'ap	'aim at'	ˁaƛ'	'gnaw'[11]

Other shapes are:

CVCC

tawn	'little'	ʔetx	'sleep'
tels	'will'	ʔeɬn	'eat'
tekɬ	'reach bottom'	ʔewɬ	'something in water'
naqs	'one'	ʔay	'tie'

CC

mg	'fasten'	lg	'sting'
t'k	'blind'	k'm	'body'
t'g	'flow'	k'r	'swim'
tr	'turn'	kx	'walk'

A number of other shapes occur especially among borrowings. They are represented in these examples.

apéls	'apple'	lekók	'cockerel'
atomopél	'car'	lapwál	'frying pan'
potn	'pudding'	lokosó	'pig'
tawn	'town'	stec	'bus'
lepót	'cup'	kncoc	'Englishman' (literally 'King George')
lesék^{W}r	'sugar'		

These terms have been assimilated into the language and are subject to affixation as are other roots.

enlapwál	'my frying pan'	snlokosótn	'pig sty'
elepót	'a cup'	kltawn	'to town'
snatomopéltn	'garage'		

II. Root Classes

Most Okanagan roots have allomorphic variants that have a distribution related to primary stress location. On the basis of this distribution roots can be categorized into one of three classes, called A, B, and C. While a fuller description of such variants is a morphophonemic consideration we exemplify the three classes as follows. In the variants, an acute accent over a vowel represents primary stress. A grave accent represents secondary stress.

Class A

nek' 'cut' has variants nék', nk'

wek 'see' has variants wók, wk

kec 'come' has variants kéc, kc

q'el 'sick' has variants q'él, q'l

Class B

peq 'white' has variants péq, pèq

t'ap 'aim at' has variants t'áp, t'àp

q^{W}'oɬ 'dark brown' has variants q^{W}'óɬ, q^{W}'òɬ

ʕac 'tie up' has variants ʕác, ʕàc

Class C

t'ol 'change' has variants t'ól, t'l

ɬaw 'stab' has variants ɬáw, ɬw

k'as 'bad' has variants k'ás, k's

x̣as 'good' has variants x̣ás, x̣s

Class B roots are patently different in this schema by virtue of their secondarily stressed vowel. Class A and Class C roots differ with respect to the occurrence of the primarily stress variant. For instance, the Class A root always maintains primary stress when co-occurring with pronoun suffixes, while the Class C root frequently does not (see page 335, Morphophonemics).

Class A: wek 'see', wékntm 'I saw it'

Class C: cak^{W} 'pull', ck^{W}ntén 'I pulled it'

This distributional classification is more significant than the preceding one based on canonical form, because the A, B, C classification

is an indication of how the root will appear phonemically in different environments, a topic discussed in Chapter Four, Morphophonemics. A classification of roots by canonical form cannot be used as the basis for an allomorphic description.

III. Distributional Restrictions

Equal breadth of morpheme distribution is not a feature of Okanagan roots. There are restrictions, the more obvious being the following.

A. Neutral Roots

Certain roots in simple stems never occur with first and second person pronouns. They refer to weather conditions.

mq^{w}aq^{w}[12]	'it is snowing'	c'aƛt	'it is cold'
newt	'it is windy'	q^{w}aac	'it is getting warm'
so?lt	'it is freezing'	q'et	'it is raining'
nxapcénx	'the weather is deteriorating'		

By contrast, k'et 'cold' has a wider distribution.

knsck'etx 'I am cold'; ha k^{w}sck'etx 'are you cold?';

sck'etx 'he is cold'

B. Number Restricted Roots

Certain roots are restricted in occurrence to singular subjects. Others occur only with plural subjects. The result of such distribution is that it becomes possible to indicate third person number categorically even when the plural marker is absent.

Singular only		Plural only	
motx	'sit down!'	p'esƛ'át	'they are big'
sélxʷa	'it is big'	kʷéllwe	'sit down!'
knqeclx	'I ran'	koc̣yáˁp	'we arrived'
xʷc'ap esc'ox̣án	'my leg broke'	koxétmst	'we ran'
		xoyƛ't enckéłp	'my ribs broke'

By contrast, ckec 'arrive' has a wider distribution.

knckec	'I arrived'	kockéc	'we arrived'

We note a semantic difference between kʷen 'take hold of singular object'[13] and kom 'take hold of plural objects'.

tkʷenxn 'I grabbed his leg'

kłkmkmxnten 'I grabbed both his legs'

C. Interrogative Roots

Interrogation, with most roots, is a syntactical matter.

kʷck'olm 'you are working'

ha kʷck'olm 'are you working?' (Open question)

oc[14] kʷck'olm 'you are working, are you not?'

But a number of roots are inherently interrogative.

stem	'what?'	kʷ'enx	'how many?'
sc'entx	'what did he say?'	k'akén	'where?'
swet	'who?'		

Thus con 'say' and ʔent 'interrogative say' are used as follows.

stem ha scostxʷ 'what did you say?'

kʷsc'entx 'what did you say?'

D. Bound Roots

While the majority of roots in the corpus are free, a number are bound. Some are always bound to suffixes, while others are bound now to roots now to suffixes.

Suffix Bound

ok^{w}t	'he crawled'	x^{w}c'ap	'it broke'
poƛstn	'I beat him'	k'ast	'it is bad'
c'aɬt	'cold'	xast	'it is good'
sox^{w}áp	'flame'	xəétk^{w}	'much water'
slax̣t	'friend'	kncn$^{?}$oɬx^{w}x	'I entered'
k^{w}tq^{w}cen	'you shouted'	knk'ewlx	'I climbed'

Root or Suffix Bound

c'o? 'burn' : c'war 'fire' (root), knc'wak 'I am burnt' (suffix)

We do not discount the possibility that every root could occur freely, but this cannot be demonstrated from our data, where some are always bound. We have, for example, the following instances of k'm 'body'.[15]

enkɬk'mélsxn	'my forehead'	nk'melps	'neck'
ennk'mnkékst	'the palm of my hand'	nk'maplqs	'bottom'
enkɬk'mnkékst	'the back of my hand'	nk'maqsc	'its point'
ank'móps elepót	'the bottom of your cup'	ɬk'mmelx^{w}	'upper part of back'
tk'max^{w}ck	'chest'	ɬk'melsxn	'forehead'
tk'mcen	'lips'	sk'menk	'lower belly'
tk'mawlq^{w}	'lower part of the back'	sk'mwsekst	'upper arm'
tk'mews	'belly'	sk'mawsqn	'mouth'
tk'mɬceep	'hip'	sk'mmews	'lower part of back'

tk'maqstx̣n 'lower leg'
tk'mekn 'top of mountain ridge'
tk'msaxn 'outer part of shoulder'
tk'maxn 'outside part of arm'
nk'mep 'Where Waters Join'(place name)
nk'msewstx̣n 'middle part of leg'

sk'msemx^{W} 'cow's teat'
sk'meltn 'throat'
k'łk'mos 'cheeks'
k'łk'mépast 'chin'
k'łk'mcenx̣n 'ankle'
k'łk'mapxqn 'back of head'

E. Particles

While the above group of morphemes is bound, its range of affixal potentiality is wide. By contrast, a small group of morphemes is found which never occurs with affixation. Within this group are both free and bound morphemes. We call this group particles.[16] Since the morphemes vary so little within a distribution of co-occurrence, they are of reduced importance in a morphological study, their function rather being syntactic. The same restricted distribution sometimes creates difficulties in establishing morpheme boundaries within an utterance: contrastive pairs are rare or nonexistent. The following list illustrates.

axá	'this one'	exó	'that one'
ak'lá	'over here'	ek'lé	'over yonder'
aƛá	'hence'	eƛé	'from that time, later'

These forms could be analyzed in several ways.

1. Within the frames a-á 'near speaker' and e-é 'removed from speaker' occur various morphemes: x 'person', k'l 'towards', ƛ 'from'. These last three morphemes are common affixes elsewhere in the language and here appear as roots. Within a similar frame could be included the roots pen 'time' and cq 'be in position' resulting in ápna 'now, today'

and ácqa 'outside'. This analysis is unacceptable because it establishes two discontinuous morphemes. We can find no other discontinuous morphemes in the data.

2. axá 'this one' consists of three morphemes, a-x-á, as does exé. Such an analysis could be broadened to include forms like axé 'thus', ałé 'because'. Elsewhere in the data we find affixes a- 'nominalizer' and -a 'person'. But we cannot associate a- and -a of axá with such affixes for semantic reasons: the meaning 'person' seems inappropriate in aƛá 'hence'; and the notion of 'nearness to speaker' is difficult to account for with a- 'nominalizer'. The additional problem is introduced of deciding whether axá is stem plus affixes or three roots forming a stem. We reject this solution.

Instead we posit axá 'this one', exé 'that one', etc. as unit morphemes. Any subdivision would institute severe and unique distributional restrictions. Resemblances among morphemes are common, even to the point of homophony.

Other particles are

el	'than'	nex^W	'also'
ha	'interrogative'	nał	'and'
ałé	'just like'	lot	'no, not'
onéx^W	'most certainly'	sec	'seldom, recently'
òł	'and, then'	ke	'affirmation'
oc	'surely?'	kam	'or'
ohóy	'hey there!'	yaxə́s	'third person'
pot	'still, enough'	way	'indeed, hello, goodbye'

mes	'more'
mat	'maybe'
t'ox	'really, completely'
q'eq'm	'soon'
q'sápə	'long ago, long time'

F. Composition of the Stem

A stem morpheme is identified on the basis of the following criteria applied individually or collectively.

1. The morpheme stands alone in an utterance.
2. The morpheme or morphemes belong to morpheme Class 8, i.e. they are not listed as belonging to any other morpheme class.
3. When listed in the Appendix as a prefix, the morpheme is preceded, not necessarily contiguously, by a morpheme that is a member of a higher numbered morpheme class.
4. When listed in the Appendix as a suffix, the morpheme is followed, not necessarily contiguously, by a morpheme that is a member of a lower numbered morpheme class.
5. When listed in the Appendix as a variable suffix, that morpheme bears primary stress and is followed in the utterance by a second variable suffix.

A stem can consist of the following.

1. A single root
2. More than one root.
3. A single root with affixation.
4. More than one root, together with affixation.

These four stem types are now illustrated. Affixes can occur with all.

1. Single Root

Many Okanagan stems are composed of a single root.

alá	'here'	kec	'someone came'
oɬ	'then'	xoy	'someone went'
mot	'someone sat'[17]	ˁan	'magpie'
mos	'four'		

Affixation modifies stem reference.

enˁán	'my magpie'	msálqʷ	'four logs'
alálx	'they are here'	kecn	'I met him'
motx	'sit down!'	koxóy	'we went'

The morpheme oɬ 'then' is a particle and never occurs in the data other than independently.

2. More than one root

Compounding of potentially free morphemes is found in the data. In utterances composed of both stem and affixation we underline the stem. eɬn 'someone ate'; k'os 'someone went'; pex̣ 'someone hunted'

knksk'osʔéɬnax 'I am going home to eat'

knksk'ospéx̣ax 'I am going hunting'

Bound roots, indicated here by a following hyphen, can be compounded with free roots or with each other.

a. mot 'sit': knmot 'I was seated'

c'oʔ- 'burn': knc'wak 'I got burnt'

war- 'fire': sc'wrmexx 'he is making a fire'

c'wartt 'our fire', wrmotéa 'campfire'

b. peq 'white': tepyéq 'it is white'

leew 'father': enleéw 'my father'

soʔ- 'power': soméx 'spiritual power'

yaʔ- 'all': yayát 'all'

soyápeq 'whiteman'[18] yakén 'which (of them all)?'

yaleéwtt 'Our Father'

c. x̣as- 'good': x̣ast 'good'

ˤac̓- 'look at' : ˤac̓ht 'look at it!'

xsˤac̓c 'he is good looking'

3. Single root with affixation.

In koxoét 'we were a crowd', the stem xoʔ 'many' has the affixes ko- 'we' and -et 'abundant'. The whole utterance can be treated as a unit stem and undergo further affixation: esckoxoét 'there was a crowd of us'. The stem is now composed of xoʔ 'many' and two morphemes listed in the Appendix as affixes, members of morpheme classes 2 and 10 respectively. Prefixed to this stem are the morphemes e- 'proclitic' and sc- 'continuative aspect'.

4. More than one root, together with affixation.

The following groups of morphemes illustrate this type of compounding. Again we underline the stem.

a. en- 'my': entóm 'my mother'

ca- 'personal affair': tancáwt 'how are you?'

kn- 'I': knkec 'I came'

k'encákn 'towards me'

b. t'ol 'change': t'lólawx 'ploughed field'

-x^{W} 'person': snaqsélx^{W} 'tribe'

qel 'person': sqelx^{W} 'man'

st'lsqélx^{W} 'transformed person'

c. ʔeɬn 'eat': knʔeɬn 'I ate'

qel 'person': sqelx^{W} 'man'

--naɬnaɬnqélx^{W}tn 'maneating monster'

d.	k'em	'remain':	k'em	'it was left'
	tem	'thing':	stem	'what'
	ya?	'all':	yayát	'all'
			k'emstém	'what was left'
			yayáctem	'everything'

e.	-en	'round object':	sqp̣q'ap̣énax^{W}	'sand'
	s-	'nominalizer':	staq	'water dam'
	c̣'o	'burn, red':	c'wak	'he was burnt'
	q̣aq	'bend, fish':	q̣aqx^{W}lx	'fish'
			q̣aqsc'wén	'Salmon River (place name)'

Sometimes ł 'connective' occurs in a stem separating two roots.[19] In phoneme composition, this morpheme partially resembles two other morphemes, the particles oł 'then' and nał 'and'.

nwewłnéẉt	'red striped watersnake'
knsc^{ʕ}acxłq'emónx	'I am reading'

We also find in the data examples of morpheme reduplication in the stem. They appear to be onomatopoeic or expressions of emphasis.

a.	tox	'straight, pure'	toxtoxsáma	'Frenchman'
	sáma	'whiteman'	toxtoxséẉłk^{W}	'good pure water'
	sewłk^{W}	'water'		

b. xocmxócm 'dove, pigeon'

IV. Chameleon Morphemes

Okanagan has a number of chameleon morphemes[20] expressing diminution and iteration. Some of these morphemes are suffixes that belong

to morpheme Class 10; the remainder, discussed here are bound stem morphemes.

Chameleon morphemes in general have a phonemic constitution closely reflecting that of a neighbouring morpheme with which it is associated. For example, tew 'young' can be accompanied by various chameleon morphemes in the following manner. The reduplicated phoneme(s) mark them.

no chameleon morphemes: téw-ł-c'a 'deer doe'

one chameleon morpheme: steewtx 'younger sibling' (tew + incomplete process --> teew)

two chameleon morphemes: sttéwtax 'younger brother' ('diminutive' + tew --> ttew; tx 'sibling' + 'diminutive' --> tax)

Similarly, q^{w}ac 'warm',

none: q^{w}ac-qn 'hat'

one: q^{w}q^{w}ac 'it is mild (weather)' ('diminutive' + q^{w}ac)

one: q^{w}aac 'it is getting warm' (q^{w}ac + 'incomplete process')

and maq$^{w'}$ 'lump',

none: c-maq$^{w'}$ 'it is a lump'

one: mq$^{w'}$aq$^{w'}$ 'it became a lump' (maq$^{w'}$ + 'completed process')

one: mamáq$^{w'}$ 'it is bumpy' ('iterative' + maq$^{w'}$)

Seven chameleon morphemes are now presented. Characteristically, they vary widely allomorphically, reduplication being a common feature (see pages 322-8). These morphemes are identified in terms of the formulae by which they are derived. The seven stem chameleon morphemes are called D- 'diminutive', DV- 'diminutive',

D?- 'diminutive', IT- 'iterative', Ia- 'iterative', -IP 'incomplete process' and -CP 'complete process'.[21] At the end of the discussion of stem morphemes we append further examples of each of these morphemes.

A. D- 'diminutive'

For clarification, we now underline the root morpheme associated with the chameleon morpheme. The second of these two utterances contains a diminutive morpheme.

snk'maplqs 'bay (in a lake)'; snk'k'maplqs 'little bay'

The root morpheme is k'm 'body'. The chameleon morpheme in the second example consists of the single phoneme k', that precedes the root, and is a reduplication of the initial phoneme of that root. These further examples of D- 'diminutive' illustrate this process of reduplication.

pomén 'drum': ppomén 'little drum'

tepyéq 'it is a white one': tepnyéq 'it is a little white one (dog)'

te^{ʕ}áx 'it is furrowed': te^{ʕʕ}áx 'it has tiny furrows'

taq'ám 'pup': sttaq'ám 'little pup'

tmhólawx 'land': ttmhólawx 'small piece of land'

ncq'qentn 'sledge hammer': nccq'qentn 'hammer'

ƛelntx^{w} 'you sprinkled it': ƛƛelt esq'ét 'it is spotting rain'

ƛt'pmncot 'he jumped ahead': nƛƛt'pmoscén 'small jumping over place' (i.e. on a stream)

cwex 'creek': ccwex 'small creek'

smsáma 'white people': ssmsáma 'white children'

stqap 'brook': sttqap 'streamlet'

sc'aƛétak^{w} 'cold spring': c'c'aƛétak^{w} 'little cold spring'

kʷre 'yellow': kʷkʷre 'gold (money)'

xʷatxʷt 'duck': xʷxʷatxʷt 'duckling'

kwap: 'horse': kkwap 'dog'

xatós 'leader': xxatós 'little leader'

xyaɬnxʷ 'sun': xxyaɬnxʷ 'clock'

xoéɬ 'road': xxoéɬ 'trail'

xlmen 'axe': xxlmen 'tomahawk'

q'emén 'writing': q'q'emén 'pen(cil)'

D- 'diminutive' always consists of a single consonant. Sometimes it co-occurs with the Class 10 -aD 'diminutive' morpheme, composed of the vowel a, followed by a consonant which is a reduplication of the final consonant of the affix with which it is associated. Here we use the root c'al 'be upright', as in c'lc'al 'he stood', and the suffix -ekʷ 'water'.

c'l-et-kʷ 'spring water'

s-c'l-ét-akʷ 'small spring'

c'-c'l-ét-akʷ 'tiny spring'

The third example has both diminutive morphemes.

B. DV́- 'diminutive'

Morpheme Class 8 contains a second diminutive morpheme DV́- 'diminutive', which is also a chameleon morpheme. It differs from D- 'diminutive' in that it often carries primary stress. The associated root then carries minimal stress. In this morpheme D is a reduplication of the initial phoneme of the associated root and V is a reduplication of the vowel appearing in the base form of the root.

ƛákna 'bag, sack': ƛáƛkna 'little sack'

cxʷamqn 'roan horse': cxʷaxʷmqn 'roan colt'

kenáqs 'one person': kenánqs 'one human baby'

An example of DV- 'diminutive' co-occurring with the suffix -aD 'diminutive' is x̣ax̣ásat 'good little one' where x̣as means 'good' and -t means 'integral characteristic'.

C. Dˀ- 'diminutive'

A third diminutive form located in the stem is Dˀ- 'diminutive',[22] also a chameleon morpheme. When this morpheme is present in an utterance, a CVC stem becomes CˀVC. For example, nek' 'cut' becomes nˀek'. Compare nek'mn 'knife' (cut + instrument) and

nanˀék'osn 'carpenter's saw'.

In the second example, na-, an iterative morpheme, precedes Dˀ + nek', the construction under discussion. Frequently Dˀ 'diminutive' occurs in an utterance with a second chameleon morpheme, illustrated in the second example above with the iterative morpheme.

D. IT- 'iterative'

While the above chameleon morpheme express diminution, other chameleon morphemes express iteration. These precede the root.

The concept of iteration in Okanagan is a broad one; and this same breadth of meaning appears to be contained in two iterative morphemes. It will be discussed after the examples.

The iterative morpheme IT- has a phonemic shape similar to that of the root morpheme with which it is associated. A frequent variant of IT- 'iterative' is CC, where the consonants are reduplications of consonants present in a root base CVC. In the examples, the root is underlined.

ɬaq' 'wide': ɬq'laq't 'carp fish'

keln 'I chased him': klkeln 'I chased him all over'

knk'etx̣n 'I lost my leg (in an accident)': knktk'etx̣n 'I lost both legs'

staɬm 'boat': stɬtaɬm 'boats'

E. Ia- 'iterative'

The morpheme Ia- 'iterative' has the canonical shape Ca- where C is a reduplication of the initial consonant of the following root morpheme, but where a is constant, unaffected by the root vowel.

tepék 'it's wooden': spapék esnamótn 'my chair is made entirely of wood'

lot kntacˤayncót 'I never laugh': lot kotacˤaˤayncót 'we never laugh'

We establish two iterative morphemes for Okanagan and assign the same meaning to both. In general, each of these morphemes expresses plurality or some type of distribution or repetition. For example, kot'apám can be translated 'we fired', frequently signifying that we all fired our weapons together at the same target, once only. A distinctive form is kot'at'apám, which includes the iterative morpheme. Depending on context this second form can mean any of the following:

'We fired---once each at different targets,
several times together or individually at one target,
several times together or individually at different targets,
sporadically over a period of time,
taking careful aim',[23]

but it does not mean 'We all fired our weapons together at the same target, once only'.

The following contrastive forms illustrate the use of the iterative.

Plurality[24]

ent'éna 'my ear': ent'nt'éna 'my ears'

enck'éłp 'my rib': enck'ck'éłp 'my ribs'

enkélx 'my hand': enklkélx 'my hands'

elméx^{W}m 'chief': elelméx^{W}m 'chiefs'

esép'exn 'mocassin': esp'sép'exn 'mocassins'

cetx^{W} 'house': ctcetx^{W} 'houses'

stałm 'boat': stłtałm 'boats'

sn^{ʕ}ac̓éna 'earring': sn^{ʕ}ac^{ʕ}ac̓éna 'earrings'

slax̣t 'friend': slax̣láx̣t 'friends'

sk'msemx^{W} 'cow's teat': sk'mk'msemx^{W} 'cow's teats'

knnkxam 'I'm walking': konkxkxám 'we're walking'

knłaat 'I got wet': kołałaát 'we got wet'

Such expression of plurality is exceptional rather than typical. More frequently Okanagan nouns, those above included, appear morphologically without any marker suggesting plurality.

naqs estáłms exé: 'he's got one boat'

asél estáłms exé: 'he's got two boats'

estáłms exé: 'he's got a boat' or 'he's got boats'

Repetition

eksla^{ʕ}ám esép'exn 'I'll put on my mocassin': ekslala^{ʕ}ám esp'sép'exn 'I'll put on my mocassins'

kot'apntém 'he shot at us': kot'at'apntém 'he kept shooting at us'

sktaxn 'he lost his arm (in an accident)': sktktaxn 'he lost both arms'

tescˤácm̓ 'he is looking at something': tescˤacˤácm̓ 'he is looking at lots of things'

ˤacánt 'tie it up': ˤacˤacánt 'tie them up'

keln 'I chased him': klkeln 'I chased him all over'

Distribution

tkʷenksn 'I took his hand': kokʷnkʷntwéwx 'we grabbed each other'

kot'apám 'we fired': kot'at'apám 'we each fired'

knsaxʷt 'I came down': kosasát 'we came down'

knˀeɬn 'I ate': koaɬˀéɬn 'we ate'

F. -IP 'incomplete process'

Two other chameleon morphemes signify 'process'. One of them -IP 'incomplete process' is used to express the idea that a process is taking place that has an eventual climax, but that this climax has yet to be reached. It can be roughly translated with English 'gradually, becoming, getting'. The phonemic shape of this morpheme is a reduplication of the vowel phoneme of the associated root. Thus root CVC + 'incomplete process' becomes CVVC. The combination ɬat' 'wet' + IP becomes ɬaat'. The initial glottal stop in the base form of a root morpheme is not realized in utterance initial position. Thus ˀoxʷ 'flame' + IP becomes ooxʷ, utterance initially. Below, we underline the associated root morpheme in the examples lacking the IP morpheme.

oxʷáp 'it is burning': ooxʷáp 'it is starting to burn'

nˤalt 'he went under (water)': nˤaalt 'he is going under'

łat' 'it is wet': knłaat' 'I got wet'

cex 'it is warm (weather)': ceex 'it is getting warm'

sopólawx 'grass': soopólawx 'short grass'

ssatkʷłp 'bull pine': saatkʷłp 'old yellow pine'

sq'oct 'fat': q'ooc 'he is getting fat'

knc'okékst 'I burnt my hands': knc'ookékst 'I am burning my hands'

This morpheme is distinct from the Class 5 prefix morpheme sc- 'continuative aspect' which as a different distribution. The meaning of the latter morpheme signifies process but lacks the idea of climax. e.g. knscpəx̣x 'I am hunting'. Here sc- implies unchanging process.

G. -CP 'completed process'

The other Class 8 chameleon morpheme indicating process is -CP 'completed process'.[25] This morpheme is distinguishable from the previously discussed chameleon morpheme on the basis of form and meaning. -IP is always recognizable by the reduplicated vowel in the stem; -CP is never present in this environment. -CP is recognizable by the reduplicated consonant at the end of the stem; -IP is never present in this environment. -IP signifies process towards a climax, a sort of imperfective; -CP indicates that the climax has been reached, a sort of perfective.

-CP 'completed process' is a chameleon morpheme with variants having the shapes VC and C. Here V, when present, is a reduplication of the vowel of the base morpheme of the root which precedes. C is a reduplication of the final consonant of the base morpheme of the

root. Thus C_1VC_2 + 'incomplete process' can be $C_1C_2VC_2$ or $C_1VC_2C_2$ depending on the class of the root involved (see Morphophonemics).

The data contain no instances of -CP following root morphemes with a final vowel nor root morphemes ending in a consonant cluster after a vowel. In the examples, the root is underlined.

peq 'white': paqq 'he became frightened'

teˤáx 'it is striped': ˤaxxálqs 'striped clothes'

cmaqʷ' 'it is a lump': mqʷ'aqʷ' 'it grew to a lump'

xʷrap 'he trembled': xʷrrapp 'he became anxious'

x̣awx̣áwt 'it is dry': x̣waw 'it dried'.

V. Co-occurrence within the Stem

Examination of the data shows that Okanagan stems are composed of from one to three roots, each with its potentially conjoined affixation illustrated on pages 97-9 above. In the discussion that follows we refer to a root and its potential affixation as a root complex and then state that a stem is composed as follows:

Root Complex ± ł ± Root Complex ± ł ± Root Complex

Here ł is the connective 'and'. We illustrate a stem with three constituent Root Complexes.

nałnałnqélxʷtn 'maneating monster'

toxtoxséwłkʷ 'good pure water'

toxtoxsáma 'Frenchman'

snsnsatkʷłpq̣n 'prince's pine'

stqʷtqʷt'aqʷslx 'they began screaming'

lot kntacacacá 'I did not cry out'

soyápeq 'whiteman'

The constituent roots are ʔeɬn 'eat', ʔewɬ 'water', peq 'white', t'aqʷ 'shout', tox 'straight, pure', caʔ 'scream', sam 'whiteman', sat 'pine tree', sen 'young', soʔ 'power', yaʔ 'all', qel 'person'.

In some of the examples one of the morphemes is reduplicated. We consider morpheme reduplication to be distinct from iteration.

Morpheme Reduplication: naɬnaɬnqélxʷtn 'maneating monster'

Iteration: koksaɬʔeɬnax 'we are going to eat'

In each example, the root morpheme is ʔeɬn 'eat'.

In morpheme reduplication, a given morpheme appears in a stem more than once; whereas in iteration, two different morphemes appear: an iterative morpheme and a root morpheme. In reduplication, a given morpheme can appear as many as three times; such is not the case with iteration.

The difference between a chameleon iterative morpheme and a reduplicated morpheme is illustrated with naxʷ 'copulate' and ɬax̣ʷ 'wild cherry', both Class C roots.

1. IT + naxʷ ---> /náxʷnxʷ/ 'wife'
2. ɬax̣ʷ + lax̣ʷ ---> /ɬx̣ʷláx̣ʷ/ 'wild cherry'

In the first construction, with the iterative morpheme, primary stress accompanies the iterative morpheme, not the root. In the second construction with the reduplicated morpheme, primary stress accompanies the root morpheme, not the initial morpheme.

Since contrastive pairs are lacking, it is difficult to perceive the semantic distinctiveness of morpheme reduplication. It is tentatively stated that reduplication denotes 'repeated act, extended state,

or characteristic trait'.[26]

Within the limits of available data, the following statements may be made regarding co-occurrence of morphemes in the root complex and root complexes within the stem.

A. Composition of Root Complex:

$$\begin{Bmatrix} \text{D-} \\ \\ \text{DV-} \end{Bmatrix} \pm \begin{Bmatrix} \text{IT-} \\ \\ \text{Ia-} \end{Bmatrix} \pm \text{D}^{?}\text{-} + \text{root} \pm \begin{Bmatrix} \text{-IP} \\ \\ \text{-CP} \end{Bmatrix}$$

This formula states that a root morpheme is present in every root complex; presence of other morphemes is optional. Occurrence of one of the bracketed diminutive morphemes excludes that of the other, the same applying to each of the iterative and each of the process morphemes. In addition to this, a maximum of two chameleon morphemes precedes the root.

B. While we have no instances of the co-occurrence of D- 'diminutive' and DV- 'diminutive', we do have instances of the co-occurrence of each with the class 10 diminutive morpheme:

D- and Class 10 -aD: kkágat 'thin' (root kag 'thin')

ssák'as 'narrow' (root sak 'narrow')

DV- and Class 10 -aD: x̣ax̣ásat 'good little one' (root x̣as 'good')

C. Co-occurrence of Diminution with Iteration

D- and IT- : ppspos 'kitten' (p-ps-pos : diminutive - iterative - cat)

Ia- and D?- : tat'ópa 'great grandchild' (Ia + $\text{D}^{?}$ + top 'great relative' + a 'person')

nan$^?$ék'osn 'carpenter's saw' (Ia + D? + nek' 'cut' + ews 'place' + n 'nominalizer')

D. Co-occurrence of iteration with a 'process' morpheme

Ia- and -IP : koƚaƚaát' 'we got wet' (ko + Ia + ƚat' + IP : we - iterative - wet - incomplete process)

E. -CP 'completed process' does not appear in the data with any stem chameleon morpheme but does co-occur with the suffix 'completed process' morpheme in x^{W}rrapp 'he is anxious'.

F. Conjunctions

We find occasional examples in the data of morphemes that are conjoined with chameleon morphemes, i.e. they never appear in an utterance without a chameleon morpheme also being present. The suffix -moƚ 'often' is an example:

p'op'omóƚ 'habitual farter'	nq^W'nq^W'moƚ 'he always steals'
pax̣pax̣móƚ 'he always hunts'	wawshmóƚ 'he keeps barking'
t'et'omóƚ 'lazy'	

Certain roots are always bound to a chameleon morpheme.

ecéctn	'equesetum'	xac'xác't	'it is strange'
paxpáxt	'he is smart'	knq^{W}lq^{W}elt	'I spoke'
ppasps	'flodgelings'	q^{W}omq^{W}mt	'excellent'
ƚx̣^{W}ƚx^{W}eƚp	'wild cherry tree'	gecgc	'small hawk'
sq^{W}lq^{W}alt	'mountain'	leew	'father'
k^{W}melmlt	'you are slow'	c'aaq^W	'flower'
x^{W}ex^{W}ávt	'it is sharp'	stee	'grass'
x^{W}atx^{W}t	'duck'		

G. Chameleon morphemes in Compound Stem

Whenever two or more chameleon morphemes appear in a stem with two non-chameleon morphemes, the chameleon morphemes cluster around a single non-chameleon morpheme.

VI. Numerals[27]

Number is expressed by a series of free and bound morphemes, appearing in stems made up of single roots or groups of roots. Affixation is frequent.

1	naqs[28]	10	opnkst	50	celkłˀópnkst
2	asél	11	opnkstełnáqs	60	t'aq'mkłˀópnkst
3	kałés	12	opnkstełasél	70	sesplkłˀópnkst
4	mos	13	opnkstełkałés	80	tmłˀopnkst
5	celkst	20	aslˀópnkst	90	xaxanłˀopnkst
6	t'aq'mkst[29]	21	aslopnkstełnáqs	100	xaccékst[30]
7	sesplk'	22	aslopnkstełasél	101	xaccekstełnáqs
8	temł	30	kałˀópnkst, kałés opnkst	200	aslxaccékst
9	xxnot	40	msłˀopnkst	1000	opnkstxaccékst

In some numbers it is difficult to isolate constituent morphemes because Okanagan has a variety of possible morphemic canonical forms, and because suspected morphemes do not occur with any other morphemes in our data.

For instance naqs 'one' could be composed of two morphemes, naq-s or it could be a single morpheme naqs. We choose the latter interpretation because naq never appears without s even when suffixes are present: nqsalq^W 'one log', nqsaxn 'one arm'. For the same

reason we consider asél 'two' to be a unit morpheme: aslálq^{w} 'two logs', asláxn 'two arms'.

On the other hand kaɬés 'three' is two morphemes kaɬ-és. The second morpheme is absent when other suffixes are present.

tkakaɬékst 'wild sarsparella' (three fingers)

kaɬálqn '(building with) three gables'

Since -és alternates with Nominal-Locative suffixes we suppose that it is a class 10 suffix possibly meaning 'numeral', but have no other evidence of its occurrence.

Stems signifying number can be used independently, naqs wekn 'I saw one (unspecified object)', or can be used in stems, aselax̣láx̣t[31] 'two friends', mspentk 'four years', or can be used with affixation,

kn- 'I': knt'q'mspentk 'I'm six years old'

-áq^{w} 'plant': asláq^{w} 'two plants'.

Such affixation is the basis for the formation of ordinals and distributives.

Ordinals beyond 'one' consist of the s- 'nominalizer' followed by the cardinal number.

asél 'two', sasél 'second'

kaɬés 'three', skaɬés 'third'

mos 'four', smos 'fourth'

'First' is expressed by xét:

axá yacxét ek^{w}én 'I took this first one'

encakncxeét 'I'm first (in a race)'

xét can also signify age:

yaxés sxeetx ƛ'encá 'she's older than I'

'First in time' is signified by sec 'new':

sec exé łekswékm earsék^{W} 'that is the first time I have seen mud-turtles'.

'Second' can also be expressed by k'ék'at, 'next'; 'last' is c'ewt.

A numeral preceded by a nominalizer sometimes appears in terms denoting weekdays.

aslásq't 'two days': saslásq't 'Tuesday'

kałásq't 'three days': skałásq't 'Wednesday'

masq't 'four days': smasq't 'Thursday'

celkstásq't 'five days': scelkstásq't 'Friday'.

The distributive affix is tac- 'each':

tacnáqs 'one each'

tacasél 'two each'

tackałés 'three each'

tacmós 'four each'.

When people are counted the affix ke- 'person' is usually used:

kemósms 'four people'

kasél esmamém 'my two wives'

kasélm spoosclx 'they both agreed',

but we also find:

kenáqs wekn 'I saw one person'

naqs wekn 'I saw one (girl)'.

ke- 'person' never appears before xoét 'many'. Instead we find twa- :

twaxoét 'many people'.

Examples of Class 8 Chameleon Morphemes

Note: In the bracketed analyses, the chameleon morphemes and the associated root morphemes are expressed with base forms.

1. D- 'diminutive'

aɬ tλ'áxat aksq^{w}lq^{w}élt 'talk a little louder!' (D-λ'ax-t-aD : diminutive - big - physical condition - diminutive)

ppspos 'kitten' (D-IT-pos : diminutive - iterative - cat)

nkkalécnax 'talk a little quieter!' (n-D-kalé-cn-a-x : in - diminutive - quiet - mouth - future - thou imperative)

ɬɬak^{w}' 'chicken hawk' (D-ɬak^{w}' : diminutive - pierce with long object)

ɬɬaq'énk 'shiner perch' (D-ɬaq'-énk : diminutive - wide - belly)

sppléna 'rabbit' (s-D-pl-éna : nominalizer - diminutive - grow - ears)

sppqpaqáqas 'young salmon' (s-D-IT-paq-áqs-aD : nominalizer - diminutive - iterative - white - nose - diminutive)

sttawmqénakst 'little finger' (s-D-tawm-q-éna-ks-t : nominalizer - diminutive - little - describing a curve - small object - finger - physical feature)

ssatk^{w}ɬp 'bull pine' (D-sat-k^{w}-ɬp : diminutive - pine - water - tree)

ssákas 'it is narrow' (D-sák-os-aD : diminutive - narrow - body - diminutive)

sk'k'atlqs 'horsefly' (s-D-k'at-lqs : nominalizer - diminutive - brown - bottom)

kkágat 'thin' (D-kag-t-aD : diminutive - thin - physical condition - diminutive)

q^{w}q^{w}ac 'it (weather) is mild' (D-q^{w}ac : diminutive - warm)

2. DV- 'diminutive'

ełsésnca 'my younger brother' (e-ł-DV-son-ca : my - kin - diminutive - young - brother)

nénot 'breeze' (DV-new-t : diminutive - blow - integral characteristic)

nenk'mn 'small knife' (DV-nek'-mn : diminutive - cut - instrument)

sésma 'white child' (DV-sam-a : diminutive - white person - person)

qaqclx 'he trotted' (DV-qec-lx : diminutive - run - requiring physical exertion)

x̣ax̣ásat 'good little one' (DV-x̣as-t-aD : diminutive - good - integral characteristic - diminutive)

3. Dʔ- 'diminutive'

nanʔékosn 'carpenter's saw' (Ia-Dʔ-nék'-os-n : iterative - diminutive - cut - place - nominalizer)

clʔa^{c}áwtm 'tiny valley' (c-Dʔ-la^{c}-awt-m : near - diminutive - surfaces approach - side by side - body)

ccoéxa 'small stream' (D-Dʔ-cwex-a : diminutive - diminutive - stream - little)

sox^{w}mamʔayam 'school teacher' (sox^{w}-Ia-Dʔ-may-am-aD : one who - iterative - diminutive - teach - indefinite object - diminutive)

snʔémat 'grandchild' (s-Dʔ-nem-t-aD : nominalizer - diminutive - child - integral characteristic - diminutive)

soenómtax 'adolescent boy' (s-Dʔ-weʔ-n-om-tx-aD : nominalizer - diminutive - mature person - attempted act - body - young person - diminutive)

sk'eélap 'widow granddaughter' (s-D -keʔ-olp-aD : nominalizer - diminutive - grand relative - bereaved person - diminutive)

4. IT- 'iterative'

enklkélx 'my hands' (en-IT-kél-x : my - iterative - grasp - body)

esp'sép'exn 'my mocassins' (e-IT-sep'e-xn : my - iterative - animal hide - foot)

p'op'omół 'habitual farter' (IT-p'oʔ-mół : iterative - fart - often)

pax̣pax̣mół 'he always hunts' (IT-pex̣-mół : iterative - hunt - often)

paxpáxt 'he is smart' (IT-pax-t : iterative - think - capable of producing)

t'nt'anwéa 'bat (zool.)' (IT-t'an-wea : iterative - flit(?) - small animal)

tescʕacʕác'm 'he is looking at everything' (te-sc-IT-ʕác'-m : article - continuative - iterative - look at - indefinite object)

cax̣cáx̣t 'hot' (IT-cax̣-t : iterative - hot - integral characteristic)

ctcetxʷ 'houses' (IT-cet-xʷ : iterative - house - house)

knqʷlqʷelt 'I spoke' (kn-IT-qʷel-t : I - iterative - speak - physical condition)

snʕacʕac'éna 'earrings' (s-n-IT-ʕac'-éna : nominalizer - on - iterative - look at - ears)

knkskʷnkʷntwéwxax 'I am going to scuffle with him' (kn-ks-IT-kʷen-t-wéwx-ax : I - intentional - iterative - seize - moving along - face to face - future)

kcpcops 'he has mattery eyes' (k-IT-cop-s : movement at - iterative - eye trouble - 3 person subject)

knktk'etxn 'I lost my legs (in an accident)' (kn-IT-k'et-xn : I - iterative - lose - legs)

xʷexʷáyt 'it is sharp' (IT-xʷay : iterative - sharp)

sktmtamt 'cloud' (s-k-IT-tam-t : nominalizer - movement to - iterative - cover - capable of producing)

yayát 'all' (IT-ya$^{?}$-t : iterative - all - integral characteristic)

sppqpaqáqas 'young salmon' (s-D-IT-paq-áqs-aD : nominalizer - iterative - white - nose - diminutive)

k^{W}kłx^{W}lx^{W}elt 'you owe . . .' (k^{W}-kł-IT-x^{W}el-t : thou - at - iterative - owe - integral characteristic)

slax̣láx̣t 'friends' (s-IT-láx̣-t : nominalizer - iterative - friend - integral characteristic)

xac'xác't 'it is strange' (IT-xác'-t : iterative - arouse curiosity - capable of producing)

q^{W}mq^{W}amt 'he is quiet' (IT-q^{W}am-t : iterative - be oblivious - capable of producing)

knercarst 'I am tired' (kn-IT-car-s-t : I - iterative - be lazy - unnaturally - capable of producing)

knklpapaám 'I am milking (a cow)' (kn-kl-IT-pa$^{?}$-ám : I - to - iterative - pull at - indefinite object)

koslsált 'we became lost' (ko-IT-sál-t : we - iterative - stray - moving along)

łx̣^{W}łax̣^{W}élp 'wild cherry tree' (IT-łax̣^{W}-élp : iterative - wild cherry - bush)

sq^{W}lq^{W}alt 'mountain' (s-IT-q^{W}al-t : nominalizer - iterative - high - integral characteristic)

sx̣alx̣ált 'day' (s-IT-x̣ál-t : nominalizer - iterative - day - natural characteristic)

ʕacʕacánt 'tie them all up!' (IT-ʕac-án-t : iterative - tie - locative - thou imperative)

ʕac̓ʕác̓ntp 'you examined him' (IT-ʕác̓-n-tp : iterative - look at - completive - ye)

seseyós 'he works well' (IT-sey-os : iterative - be ambitious - body)

ƛq'ƛaq't 'carp fish' (IT-ƛaq'-t : iterative - wide - integral characteristic)

kʷqʷnqʷant 'you aroused my pity' (kʷ-IT-qʷan-t : thou - iterative - pity - capable of producing)

stxʷmxʷámena 'pinto horse with red ears' (s-t-IT-xʷem-ena : nominalizer - location - iterative - red - ears)

kocacaʔntéxʷ 'you kept hitting me' (ko-IT-caʔ-n-texʷ : me - iterative - punch - completive - thou)

tkʷ'enkʷ'nx 'how many?' (t-IT-kʷ'en-x : article - iterative - interrogative quantity - body)

kókwa 'outsider' (IT-kaw-a : iterative - different - person)

gecgc 'small hawk' (IT-gec : iterative - hawk)

xʷatxʷt 'duck' (IT-xʷat : iterative - quack)

kemósms 'four people' (ke-IT-mos : person - iterative - four)

naxʷnxʷ 'wife' (IT-naxʷ : iterative - copulate)

lemlmt 'thank you' (IT-lem-t : iterative - please - capable of producing)

nqʷ'nqʷ'moƛ 'he always steals' (IT-naqʷ'-móƛ : iterative - steal - often)

spcpcnécax̣m 'running shoes' (s-IT-pec-n-eca-x̣m : nominalizer - iterative - fibrous material - location - removed body hair - foot)

sk'mk'msemx^{W} 'cow's teats' (s-IT-k'm-semx^{W} : nominalizer - iterative - body - udder)

kłkmkmx̣ntén 'I seized both his legs' (kł-IT-km-x̣-n-ten : on - iterative - seize - leg - completive - I)

stk^{W}rk^{W}réc'a 'navaho coloured horse' (s-t-IT-k^{W}r-éc'a : nominalizer - location - iterative - yellow - hide)

konkxkxám 'we are walking' (ko-n-IT-kx-am : we - on - iterative - walk - indefinite object)

5. Ia- 'iterative'

mamáq$^{W'}$ 'it (road) is bumpy' (Ia-maq$^{W'}$: iterative - lump)

nq^{W}aq^{W}ayáca 'first green salmon' (n-Ia-q^{W}ay-éca-aD : on - iterative - green - game animal - diminutive)

wawahmół 'he keeps barking' (Ia-wah-mół : iterative - bark - often)

knpapasélxx 'I am wondering (what to do)' (kn-Ia-pas-elx-x : I - iterative - think - requiring physical exertion - non-future)

kołałaát 'we got wet' (ko-Ia-lat-IP : we - iterative - wet - incomplete process)

kosasát 'we came down' (ko-Ia-sa^{ʔ}-t : we - iterative - descend - moving along)

konsasaétk^{W} 'we fell into the water' (ko-n-Ia-sa^{ʔ}ét-k^{W} : we - into - iterative - descend - abundance - water)

sct'at'óxtx 'it (bird) is flying around' (sc-Ia-t'ox-t-x : continuative - iterative - fly - moving along - non-future)

sox^{W}mamayám 'teacher' (sox^{W}-Ia-may-am : one who - iterative - teach - indefinite object)

kot'at'apntém 'he kept shooting at us' (ko-Ia-t'ap-n-tem : us - iterative - aim at - completive - he)

lala^{c}ánt 'put them (mocassins) on!' (Ia-la^{c}-an-t : iterative - surfaces approach - locative - thou imperative)

nan$^{?}$ék'osn 'carpenter's saw' (Ia-D$^{?}$-nék'-os-n : iterative - diminutive - cut - place - nominalizer)

tat'ópa 'great grandchild' (Ia-D$^{?}$-top-a : iterative - diminutive - grand relative - person)

spapék 'it (chair) is entirely made of wood' (s-Ia-pek : customary - iterative - board)

6. -IP 'incomplete process'

ensoóx 'Autumn is coming' (e-n-sox-IP : proclitic - into - autumn - incomplete process)

t'ool 'it is improving' (t'ol-IP : change - incomplete process)

n^{c}aalt 'he is going under (water)' (n-^{c}al-IP-t : into - submerge - incomplete process - moving along)

steek$^{w'}$ 'spark' (s-tek$^{w'}$-IP : nominalizer - spark - incomplete process)

c'ookékst 'he is burning his hands' (c'o$^{?}$-IP-k-eks-t : burn - incomplete process - suffering - hands - physical feature)

knq'ooc 'I am getting fat' (kn-q'oc-IP : I - fat - incomplete process)

knxeet 'I am winning' (kn-xet-IP : I - first - incomplete process)

xaap 'it is getting cooler (weather)' (xap-IP : north - incomplete process)

steewtx 'younger sibling' (s-tew-IP-tx : nominalizer - young - incomplete process - sibling)

saatk^{W}łp 'old yellow pine' (sat-IP-k^{W}-łp : pine - incomplete process - water - tree)

saax^{W} 'it (water) is cooling off' (sax^{W}-IP : cool - incomplete process)

q$^{W'}$ool 'grime' (q$^{W'}$oł-IP : dark brown - incomplete process)

q^{W}aac 'it (weather) is getting warmer' (q^{W}ac-IP : warm - incomplete process)

7. -CP 'completed process'

ecxállws 'he is there' (e-c-xal-CP-ws : proclitic - durative - be located - completed process - place)

paqq 'he became frightened' (paq-CP : white - completed process)

pλ'aƛ' 'it (house) collapsed' (paƛ'-CP : collapse - incompleted process)

mq$^{W'}$aq$^{W'}$ 'it became a lump' (maq$^{W'}$-CP : lump - completed process)

mq^{W}aq^{W} 'it is snowing' (meq^{W}-CP : snow - completed process)

npssólawx 'it (tyre) is flat' (n-ps-CP-ólawx : on - adhere to - completed process - ground)

ntoxxqén 'it is noon' (n-tox-CP-qén : on - straight - completed process - head)

nwewłnéwt 'red striped watersnake' (new-CP-ł-néw-t : red - completed process - connective - red - integral characteristic)

nłx^{W}x^{W}ops 'it (pot) has a hole in it' (n-łx^{W}-CP-ops : in - hole - completed process - bottom)

nx̣wwsémx^{W} 'he (cow) udder has gone dry' (n-x̣aw-CP-sémx^{W} : in - dry - completed process - udder)

nq^{W}annmén 'I pitied him' (n-q^{W}an-CP-me-n : on - pity - completed process - instrument - I)

c'ekk 'it is burning' (c'ek-CP : burn - completed process)

kok^{W}éll 'we sat' (ko-k^{W}el-CP : we - sit - completed process)

knnkl^{c}ammen 'I grew thirsty' (kn-n-kl-^{c}ám-CP-en : I - in - to - thirst - completed process - mouth)

knnx̣wawáłq^{W}lt 'my mouth is dry' (kn-n-x̣aw-CP-ał-q^{W}l-t : I - in - dry - completed process - inside surface - mouth - physical feature)

knłwaw 'I have a splinter (in myself)' (kn-ław-CP : I - stab - completed process)

knk^{W}nnem 'I was caught' (kn-k^{W}en-CP-em : I - seize - completed process - body)

x^{W}rrapp 'he is anxious' (x^{W}r-CP-ap-CP : be frayed - completed process - body - completed process)

x̣waw 'it dried' (x̣aw-CP : dry - completed process)

q^{W}lal 'it (weather) got hot' (q^{W}al-CP : hot - completed process)

^{c}axxálqs 'striped clothes' (^{c}ax-CP-alqs : stripe - completed process - clothes)

THE AFFIXES

Okanagan has a finite number of morphemes that we refer to as affixes. An affix is a form that stands in juxtaposition to a Class 8 stem morpheme and is never uttered alone. Two groups of affixes are prefixes and suffixes, so-called from their distributional position with respect to the stem.

Prefixes

Among the prefixes is the proclitic e- which we discuss first. We then describe seven classes of prefixes and four classes of suffixes.

PROCLITIC

Okanagan has one proclitic, e-, which we translate with the indefinite article 'a'. It is possibly related to the particle exé 'yonder'. The proclitic occurs only initially in utterances, and in this respect is distinct from the group of affixes called Emphatics, which make up Class 1 morphemes. While the occurrence of Emphatics is restricted to one per utterance, any one of them can follow the proclitic e-. Each of the Class 1 morphemes denotes some degree of emphasis, a semantic distinction not present in the proclitic.

We illustrate the proclitic and compare it with the emphatic prefix t'e- 'this, the'.

esqélx^{w}[32] 'an Indian'; tesqélx^{w} 'this Indian'

exé esqélx^{w} 'that is an Indian; exé tesqélx^{w} 'that is the Indian (I was talking about)'

The proclitic and the emphatic prefix can occur together in a single

utterance: axá etesqltméx^{W} 'this was the man (talking, not the woman)'. And in 'the muskrat is black', teq$^{W'}$áy es^{c}anéx^{W}, the prefixes occur on successive words, where the colour, q$^{W'}$áy, receives the emphasis rather than the animal, s^{c}anéx^{W}.

We have no examples of the proclitic appearing with particles. It does, however, occur with nouns and verbs.

earsék^{W} 'a mud turtle'; ewékn 'I saw it'

It is difficult to perceive any meaning difference between forms lacking the proclitic and forms where the proclitic is present:

k^{W}en 'I took it'; ek^{W}én 'I took it'

Further, it is difficult to predict when e- will or will not occur:[33]

knkspéx̣ax skkáka 'I'm going to hunt birds' (no proclitic)

knkspéx̣ax esƛ'acénm 'I'm going to hunt deer' (proclitic is present)

knkspéx̣ax t'eskmxést 'I'm going to hunt bear' (t'e- is present)

Examples of Proclitic e-

eank'séls 'a mean man' (e-a-n-k's-éls : a - nominalizer - in - bad - heart)

etx^{W}áyaqslx 'they piled it up' (e-t-x^{W}-áy-aq-s-lx : article - location - abundance - consolidate - head - 3 person - 3 person pluralizer)

kemósms escłłt'améxx 'there are four people fishing' (e-sc-łł-t'a-méx-x : article - continuative - fish - strike - usitative - non-future)

esqélx^{W} 'Indians' (e-s-qél-x^{W} : article - nominalizer - person - man)

ekltmhólawxs 'to his country' (e-kl-tmh-ólawx-s : article - towards - property - land - his)

ekʷéƛ't alá 'there are others here' (e-kʷéƛ'-t : article - other - integral characteristic)

exoét 'a crowd' (e-xo-ét : article - many - abundant)

wekn eˤátat 'I saw a blue hawk' (e-ˤát-at : article - hawk - diminutive (integral characteristic))

axá etesqltméxʷ 'this was the man' (e-te-s-ql-t-méxʷ : article - the - nominalizer - person - integral characteristic - tribesman)

nek's et̓nék'mn 'he cut it with a knife' (e-t̓-nék'-mn : article - instrumental - cut - instrument)

elcétxʷ namót 'he's sitting in the house' (e-l-cét-xʷ : article - location - house - house)

knksmamáyax eƛasqélxʷ 'I'll learn from the Indians' (e-ƛa-s-qél-xʷ : article - from - nominalizer - person - man)

asél escwéktt 'we could see two' (e-sc-wék-tt : article - continuative - see - we)

MORPHEME CLASS 1. EMPHATIC

1.	pen-	'time'
2.	me-	'obligation: should, please; anticipation: I, etc. expect to. . . .'
3.	t'e-	'location in time or space: now, then, at, near, there; article: the, this'
4.	ƛa-	'from a time or place'
5.	la-	'at a location'
6.	talé-	'very'
7.	ca-	'personal concern'
8.	cm-	'possibility'
9.	kʷa-	'indeed'
10.	k'a-	'movement to or location at a specific place'
11.	ke-	'indeed'

Eight of the eleven emphatic morphemes have the canonical form CV; two of the remainder, pen- 'time' and talé- 'very' have CV variants which are described in the Morphophonemics. The presence of any Class 1 morpheme in an utterance is grammatically optional; but when the class is represented, not more than one such morpheme appears in any one utterance. The general class meaning is one of emphasis.

knq'elt 'I was sick' : taléknq'élt 'I was very sick'

In examining the Okanagan morpheme list as a whole, we note that similarities exist between certain emphatic morphemes and other morphemes not listed under the same class heading. There are resemblances between some emphatic morphemes and stem (Class 8) or prepositional

(Class 6) morphemes.

CLASS ONE MORPHEMES

HAVING COUNTERPART ELSEWHERE		HAVING NO COUNTERPART ELSEWHERE
HAVING CLASS 8 COUNTERPART	HAVING CLASS 6 COUNTERPART	
talé- 'very'	t'e- 'location'	pen- 'time'
ca- 'personal concern'	ƛa- 'from'	me- 'obligation'
cm- 'possibility'	la- 'location'	k^{w}a- 'indeed'
ke- 'indeed'	k'a- 'place'	

The resemblances are established on the double basis of similar phonemic shape and similar semantic reference. Distributional characteristics, however, are not equatable; and we consequently posit eleven different morphemes.

We compare the following Class 1 emphatic morphemes and Class 8 stem morphemes.

Emphatic Morphemes	Stem Morphemes
ca- 'personal concern'	encá 'I'
talé- 'very'	taɬ- 'very, straight'
cm- 'possibility'	cmay 'maybe'
ke- 'indeed'	ke 'affirmation'

Among the Class 8 stem morphemes taɬ- is a bound root and can be uttered only when some other morpheme is present, e.g. Class 10 -t 'integral characteristic'. The other Class 8 morphemes can be uttered in isolation. On the other hand all the emphatic morphemes require the

presence of a Class 8 morpheme before they can be uttered. On distributional grounds, we state that the morphemes in these two groups are all distinct.

We typify the distributions of the two classes using ke- 'indeed' and ke 'affirmation' as illustrations. The Class 1 morpheme ke- 'indeed' is always prefixed to a Class 8 morpheme, as in kewekn 'I did see it', kekmckéc 'I certainly did come here'. We never find *weknke or *knckécke for instance; nor do we find ke- bearing primary stress. On the other hand ke 'affirmation' is a commonly heard isolated utterance. A speaker uses it to indicate his general support or agreement with a point of view being espoused, translatable here as 'Sure!' or 'Of course!' Sometimes it is heard with other words, e.g. way. ke, wekn 'Indeed. Yes, I saw it' or way wekn, ke. It always bears primary stress, and has a distribution quite distinct from that of ke- 'indeed'.

For similar reasons talé- 'very' is an affix, distinct from tal- 'very'. The status of talé- is, however, complicated by the fact that it is used in the valediction, talésláx̣t 'goodbye, friend' literally 'very (good) friend'. Occasionally, the valediction is abbreviated to taló 'goodbye' and thus occurs in isolation but only in this single instance.

The other two Class 1 morphemes in this subgroup are illustrated as follows:

ca- 'personal concern'. In our data, this morpheme occurs with intransitive verbs but not with transitive verbs.

knskec 'I came'; caknskéc 'I did come'

cm- 'possibility'.

t'apntén 'I fired at him'; cmt'apntén 'I may fire at him'

Other emphatic morphemes are similar to Class 6 prepositional morphemes.

Emphatic Morphemes		Class 6 Morphemes	
t'e-	'location'	t-	'location'
ƛa-	'from'	ƛ-	'from'
la-	'location'	l-	'location'
k'a-	'place'	k-	'place'

The four Class 1 morphemes all denote a greater degree of emphasis than the corresponding Class 6 morphemes.

Examination of the meanings of the above forms invites the suggestion that instead of dealing with eight separate morphemes we have before us four morphemes each composed of phonologically varying constituent allomorphs. Because of the unreliability of meaning as principal criterion, the interpretation is considered dubious. The assertion could be repeated with partial phonemic resemblance as the criterion, semantic similarity being a positive but subordinate factor. The argument is again rejected because the resulting morpheme distribution would be unique within the total morphological system of Okanagan. Nowhere else in the morphology do we find one morpheme appearing in different affixal positions. Every individual morpheme, in all its variants, occurs only within the morpheme class to which it has been assigned; it does not realize one allomorph in one affix position and a different allomorph in a different affix position.

Morpheme Class 8, the stem, is an open class, and as such theoretically includes all other morphemes of the language in all their possible variants. Thus the characteristics of morpheme Class 8 cannot be cited as supporting evidence.

The morpheme t'e- 'location' has a function that often resembles that of a definite article, particularly when it is compared with a form that bears the e- 'proclitic':

tesqltméx^W 'the man'; esqltméx^W 'a man'

However, both morphemes can occur together in etesqltméx^W 'the man', a form having only slight difference in meaning from tesqltméx^W. The morphemes k'a-, ƛa- and la- are illustrated as follows:

k'a 'movement to or location at a specific place':

nwest 'it is high'; k'anwést 'it is up on top'

ƛa- 'from'

k'akén 'whither'; ƛakén 'whence'

la- 'at a location':

k'akén 'to which place'; lakén 'at which place'

The remaining Class 1 morphemes pen- 'time', me- 'obligation', k^{W}a- 'indeed' have no obvious counterparts elsewhere. The morpheme pen- 'time' is common in names of months in the Head of the Lake dialect, but is not used in the Penticton dialect, where the suffix -ten 'season' is used instead.

Head of the Lake: pesknérmn 'March'[34]

Penticton: sknermntn 'March'

Sknermn means 'buttercup'. Pen is used as a Class 8 morpheme in pentk

'always', and spentk 'year'.[35]

Obligation or anticipation are expressed in the morpheme me- :

poλstn 'I beat him'; mepóλstn 'I am going to beat him'
kokécntx^{W} 'you came to us'; mekokécntx^{W} 'you should come to us'

k^{W}a- 'indeed' intensifies the meaning of the following stem:

koscpóλstms 'he beat me'; k^{W}akoscpóλstms 'he certainly did beat me!'

Examples of Class 1 Morphemes

1. pen- 'time'

penkén 'when?' (pen-kén : time - interrogative)
peméktotn 'July' (pe-mékto-tn : time - sunflower seed - season)
pensax^{W}x^{W}wélx 'November' (pen-sax^{W}-x^{W}-wélx : time - cold - completed process - become)

2. me- 'obligation: should, please; anticipation: I, etc. expect to . . ., I, etc. want you, etc. to . . .'

ánwe mek^{W}k'ólm 'you should go and work' (me-k^{W}-k'ól-m : should - thou - work - indefinite object)
meknłckécx 'I shall come back here' (me-kn-ł-c-kéc : anticipational - I - back - hither - come)
mekokécntx^{W} 'you should come to us' (me-ko-kéc-n-tx^{W} : should - us - come - completive - thou)
penkén mekołwékntx^{W} 'when are you coming to see me?' (me-ko-ł-wék-n-tx^{W} : anticipational - me - subordinate - see - completive - thou)
menk'łx^{W}ax̣ntéx^{W} 'you go for his leg' (me-n-k'ł-x^{W}a-x̣-n-téx^{W} : should - on - to - seize - leg - completive - thou)

3. t'e- 'location in time: now, then; location in space: at, near, there; article: the, this'

ha tekʷx̣ást 'do you feel alright?' (te-kʷ-x̣ás-t : now - thou - good - physical condition)

way t'ewékntm 'yes, now we see it' (t'e-wék-n-tm : now - see - completive - we)

alá t'ekoskʷlléwtx 'we are just sitting around here' (t'e-ko-s-kʷl-l-éwt-x : here - we - customary - sit - completed process - side by side - non-future)

t'eank'séls 'the mean man' (t'e-a-n-k's-éls : article - nominalizer - in - bad - heart)

texoét 'the crowd' (te-xo-ét : the - many - abundance)

tek'ém 'hardly' (te-k'ém : the - remainder)

tesx̣alx̣ált 'the day' (te-s-x̣al-x̣ál-t : the - nominalizer - iterative - day - natural characteristic)

tek'áw 'nobody' (te-k'áw : article - absent)

t'enáqs escwék 'I saw only one' (t'e-náqs : article - one)

t'ekʷscˤac'xncótx 'you are always looking in the mirror' (t'e-kʷ-sc-ˤac'-x-n-cót-x : there - thou - continuative - look at - habitual - locative - self)

t'etkokʷ'éna meqʷlqʷélt 'say little' (t'e-t-ko-kʷ'én-a : article - there - small object - amount - little)

tenés 'he has gone' (te-nés : article - distant)

tesqltméxʷ 'the man' (te-s-ql-t-méxʷ : article - nominalizer - person - integral characteristic - tribesman)

4. ƛa- 'from a time or place'

ƛakén exé 'where is he from?' (ƛa-kén : from - interrogative)

ƛax̣aláp 'starting tomorrow' (ƛa-x̣al-áp : from - daylight - time)

ƛ'ápna 'henceforth' (ƛ'-ápna : from - now)

5. la- 'at a location'

lakén exé 'where is he?' (la-kén : location - interrogative)

lanwést exé 'he is on top' (la-n-wés-t : location - on - high - natural characteristic)

elacox^{W}áp 'a fire' (e-la-c-ox^{W}-áp : article - location - durative - flame - body)

6. talé- 'very'

talésláx̣t 'goodbye, friend' (talé-s-láx̣-t : very - nominalizer - friend - integral characteristic)

talék^{W}esláx̣t 'you are my real friend' (talé-k^{W}-e-s-láx̣-t : very - thou - my - nominalizer - friend - integral characteristic)

taléknx̣stwélx 'I feel much better' (talé-kn-x̣s-t-wélx : very - I - good - inherently - become)

léknˤáymt 'I'm very angry' (lé-kn-ˤáy-m-t : very - I - throat region - body - physical condition)

talét'éqlq^{W} 'he's very tall' (talé-t'éw-lq^{W} : very - tall - legs)

7. ca- 'personal concern'

ápna cak^{W}xóy 'you had better go now' (ca-k^{W}-xóy : personal concern - thou - go)

caknsk'áwax 'I'm going away' (ca-kn-s-k'áw-ax : personal concern - I - customary - be absent - future)

caknxeét 'I'm the winner' (ca-kn-xe-ét : personal concern - I - first - incomplete process)

caknˁayncót 'I laughed' (ca-kn-ˁay-n-cót : personal concern - I - throat region - locative - self)

caknksƛ'lméxax 'I am going to die' (ca-kn-ksƛ'l-méx-ax : personal concern - I - inevitable future - die - usitative - future)

8. cm- 'possibility'

cmt'apntéslx 'they may fire at him' (cm-t'ap-n-tes-lx : possibility - aim at - completive - 3 person - 3 person pluralizer)

cmwekn ápna 'I may see him today' (cm-wek-n : possibility - see - I)

cmcaˀncén 'I may hit you' (cm-caˀ-n-ce-n : possibility - punch - completive - thee - I)

9. kʷa- 'indeed'

exé kʷasmsáma 'those are white people' (kʷa-sm-sam-a : indeed - iterative - whiteman - person)

kʷakopóƛsc 'he beat me' (kʷa-ko-poƛ-st-s : indeed - me - beat - causative - he)

kʷac'éwt 'he is behind' (kʷa-c'ew-t : indeed - back - physical condition)

kʷaknskókwa 'I am different' (kʷa-kn-s-ko-kw-a : indeed - I - customary - iterative - strange - person)

10. k'a- 'movement to or location at a specific place'

k'akén pasél 'where is Basil?' (k'a-ken : place - interrogative)

k'anwést exé 'he is on top' (k'a-n-wes-t : place - on - high - physical condition)

kacwéwax 'she lived in an old tent' (ka-c-we-wax : place - durative - diminutive - set upright)

sckenx kałck'ólm 'why is he working?' (ka-ł-c-k'ól-m : place - subordinate - durative - work - indefinite object)

kakécn 'I found it' (ka-kéc-n : place - come - I)

kanq^{w}anménen 'I pitied you' (ka-n-q^{w}an-mén-c-n : place - on - pity - instrument - thee - I)

11. ke- 'indeed'

l$^{?}$opnkst keknk'ólm 'I start work at ten' (ke-kn-k'ól-m : indeed - I - work - indefinite object)

kekncкéc q'sápe 'I came long ago' (ke-kn-c-kéc : indeed - I - hither - come)

tałt kenéwt 'it's very windy' (ke-néw-t : indeed - blow - integral characteristic)

k'akén kek^{w}ck'ólm where do you work?' (ke-k^{w}-c-k'ól-m : indeed - thou - durative - work - indefinite object)

keƛ'lxontém 'we massacred them' (ke-ƛ'l-xo-n-tém : indeed - kill - fall - completive - we)

keƛ'ax̣áp 'he's bigger' (ke-ƛ'ax̣-áp : indeed - big - body)

alá ketkécntm 'we met him here' (ke-t-kéc-n-tm : indeed - location - come - completive - we)

MORPHEME CLASS 2. PRONOUN

Okanagan has nine Class 2 morphemes signifying first and second persons. We call them pronouns. They express nominal possession, verbal subject and object.

1. en- '1 person subject/possessive'
2. an- '2 person subject/possessive'
3. p- 'ye subject'
4. p- 'ye object'
5. k^w- 'thou'
6. k^w- 'thee'
7. ko- '1 person subject'
8. ko- '1 person object'
9. kn- 'I'

Not all Okanagan pronouns are included in this single class; some are members of Morpheme Class 12. In addition the following independent forms have pronominal reference.

ánwe 'thou'
axá '3 person, near'
énca 'I'
exé '3 person, far'
mnemłmp 'ye'
mnemłtt 'we'
mnemłclx 'they'
cnełc '3 person singular'
yaxés '3 person'

The Class includes both subject and object pronouns. Consequently two Class 2 morphemes sometimes occur in one utterance, the first being object, the other subject, always in that order. In other utterances we find a single Class 2 morpheme appearing, functioning some-

times as subject, sometimes as object. In still other verb forms, no Class 2 morpheme appears, pronominality being represented covertly, or in a separate word, or in a pronoun suffix.

Two pronouns: k^{W}escƛ'aám 'I'm looking for you' (k^{W}-e-sc-ƛ'a-ám : thee - I - continuative - seek - indefinite object)

One Class 2 morpheme: kowékntx^{W} 'you saw me' (ko-wék-n-tx^{W} : me - see - completive - thou)

kowékm 'we saw it' (ko-wék-m : we - see - indefinite object)

No Class 2 morpheme: wekncṭ 'we saw thee' (wek-n-c-ṭ : see - completive - thee - we)

xoy 'he went'

In this last example both completive aspect and third person are covertly represented.

In syntactic combination of verbs, one of the verbs, usually the second, lacks pronominal subjective modification:

sec exé łekswékm earsék^{W}, lot sasél cwekm 'that's the first time I've seen a mud turtle, no--the second time I've seen one'

Here, the morpheme wek 'see' occurs twice: once with a Class 2 pronoun and once without it: ł-e-ks-wék-m : subordinate - I - intentional - see - indefinite object; c-wek-m : durative - see - indefinite object.[36]

The functions subject and object are distinguishable both distributionally and morphologically. Subject and object pronouns always occur in a fixed relative position, object preceding subject. Morphemes that function subjectively never function objectively and vice versa. There is, however, no such clear cut distinction between

singular and plural concepts. The Class 12 third person pluralizer, -lx, is used only when the speaker wishes to stress plurality.

st'apstémlx	'we fired at them'[37]
st'apstém	'we fired at him/them'

When singular-plural distinctions exist among Class 2 pronouns the difference is expressed by co-occurrence.

kowéks	'he saw me'
kowékntm	'he saw us'

Here, the number, singular or plural, of the pronoun prefix ko '1st person object' is signaled by the choice of pronoun suffix, -s 'he', -tm 'he'. When -s appears, ko- is singular; when -tm appears, ko- is plural. Such distributional differences are, however, infrequent. More typical is

kowékntp	'ye saw me/us'
kowékntx^{W}	'thou saw me/us'

Since ko- 'me' and ko- 'us' occur in the same morphological environment, there is no justification for the establishment of two separate morphemes, one singular and one plural. Instead, ko- is glossed as 'first person object'. Other pronouns with singular-plural reference are listed in the Appendix.

On the other hand, the distributional characteristics of ko- 'first person object' and ko- 'first person subject' are quite distinct. They are considered separate morphemes for the following reasons.

1. ko- 'subject' occurs either immediately before another pronoun, or is the only pronoun in an utterance. It never, for instance, co-occurs with a Class 12 pronoun.

koaslax̣láx̣t	'we are your friends'

koslax̣láx̣t 'we are friends'

ko- 'object' frequently accompanies a Class 12 pronoun, and is never the only pronoun in an utterance.

2. ko- 'object' accompanies -s 'customary aspect' and -n 'completive aspect'; ko- 'subject' never accompanies these two markers. Instead, ko- 'subject' is used with s- 'customary aspect', a prefix, and a completive aspect that is never overtly marked.

3. ko- 'subject' frequently occurs with the tense markers -ax 'future' and -x 'non-future'. ko- 'object' never occurs in this environment.

4. Pronoun affixes in general function either as subject or as object, not as both.

5. These two morphemes have distinct meanings.

Okanagan has two pronoun prefixes expressing first person singular, en-, and kn-. It is often possible to substitute one term for the other with little apparent semantic change.

ewékm 'I saw something' (e-wék-m : I - see - indefinite object)

knwekm 'I saw something'[38] (kn-wek-m : I - see - indefinite object)

Distribution of the pronouns appears similar: both morphemes accompany members of Morpheme Class 5, Verbalizers, and both appear with members of Morpheme Class 3, Nominalizers. But in the latter case the kn- construction is a verb, while the en- construction is a possessed noun. See examples on pages 142 and 144 below. Likewise, two prefixes express second person singular, an- and k^W-. The distribution of k^W- 'thou' is the same as that of kn-, and that of an- 'thou' is the same as that of en-. Thus kn- and k^W- have denotations corresponding to English 'I am', 'thou art', which are lacking with en- and an-.

knelméx^{w}m 'I am chief'	k^{w}ppoƛst 'you are beaten'
knxnomt 'I am hurt'	k^{w}st'apénk 'you have a big stomach'
knscknmqen 'I am blind'	

Possessive markers are very commonly used with 'possessable' object, and parts of the body. Thus speakers tend to speak of 'my horse' and 'your chair' rather than 'that horse' or 'the chair'. En- and an- express first and second person possession respectively in noun constructions.

annék'mn 'your knife'	esnamótn 'my chair'
ankélx 'your arm'	ank'móps elepót 'the bottom of your cup'

Possession is marked twice in an expression like oc kowékłtx^{w} ennek'mn 'have you seen my knife?' literally 'have you seen to me my knife?', where ko- 'me' introduces the transitive verb, and en- 'my' precedes nek'mn 'knife'.

The syntactic construction with plural subject is also worth noting: koksk'ólax nał esláx̣t 'my friend and I are going to work' literally 'we intend to work - and - my friend'.

pex̣mlx eskmxést nał eleéws 'he and his father went hunting bears' literally 'they hunted - bears - and - his father'.

In this last example the nouns skmxest 'bears' and leews 'his father' are introduced by the proclitic e-. The possessive pronoun in eleews is the suffix -s 'his'.

Examples of Class 2 Morphemes

1. en- '1st person subject/possessive'

entóm 'my mother' (en-tom : my - mother)

enkkwáp 'my dog' (en-k-kw-ap : my - diminutive - small - feet)

ełłxóy 'I returned home' (e-ł-ł-xoy : I - back - again - go)

estáłm 'my boat' (e-s-tał-m : my - nominalizer - waterproof - body)

esláx̣t 'my friend' (e-s-lax̣-t : my - nominalizer - friend - integral characteristic)

escpéx̣m 'I am hunting something' (e-sc-pex̣-m : I - continuative - hunt - indefinite object)

pesctxóymnm 'we are attacking you' (p-e-sc-t-xoy-mn-m : you (pl) - we - continuative - towards - go - instrument - indefinite object)

k^Wesct'apám 'we were shooting at you' (k^W-e-sc-t'ap-am : thee - we - continuative - aim at - indefinite object)

2. an- '2nd person subject/possessive'

anleéw 'your father' (an-leew : thy - father)

anxlmén 'your axe' (an-xl-men : thy - chop - instrument)

annék'mn 'your knife' (an-nek'-mn : thy - cut - instrument)

asopcón 'your beard' (a-s-op-cen : thy - nominalizer - hair - mouth region)

astxmén 'your comb' (a-s-tx-men : thy - nominalizer - comb - instrument)

ascƛ'aám 'you were looking for something' (a-sc- 'a-am : thou - continuative - seek - indefinite object)

axóy 'you went' (a-xoy : thou - go)

pentk asq^{W}lq^{W}élt 'you are always talking' (a-s-q^{W}l-q^{W}el-t : thou -

customary - iterative - mouth - physical condition)

koasct'apám 'you were shooting at us' (ko-a-sc-t'ap-ám : us - ye - continuative - aim at - indefinite object)

3. p- 'ye subject'

pyayát 'all of you' (p-ya-yá-t : ye - iterative - all - integral characteristic)

ha pepox̣x 'are you hunting?' (p-e-pox̣-x : ye - durative - hunt - non-future)

pkókwa 'you are different' (p-kó-kw-a : ye - iterative - strange - living creature)

ptkasélm 'you two' (p-t-k-asél-m : ye - location - person - two - indefinite object)

4. p- 'ye object'

pscwekmslx 'they can see you' (p-sc-wek-m-s-lx : ye - continuative - see - indefinite object - 3 person - 3 person pluralizer)

peksˤác̓m 'I will look at you' (p-e-ks-ˤác̓-m : ye - I - intentional - look at - indefinite object)

5. k^{W}- 'thou'

k^{W}ckec 'you have arrived (greeting)' (k^{W}-c-kec : thou - hither - come)

ha k^{W}sc'etxx 'are you sleeping?' (k^{W}-sc-ˀetx-x : thou - continuative - sleep - non-future)

6. k^{W}- 'thee'

k^{W}esct'apám 'we were shooting at you' (k^{W}-e-sc-t'ap-ám : thee - we - continuative - aim at - indefinite object)

k^{W}ksknxetms 'he is going to help you' (k^{W}-ks-kn-xet-m-s : thee -

intentional - harm - lay on hands - indefinite object - he)

7. ko- '1 person subject: I, we'

koanleéw 'I am your father' (ko-an-ḷeéw : I - thy - father)

koslax̣láx̣c 'we are his friends' (ko-s-lax̣-láx̣-t-s : we - nominalizer - iterative - friend - integral characteristic - his)

koyayát 'all of us' (ko-ya-yá-t : we - iterative - all - integral characteristic)

kosckécx 'we are coming' (ko-sc-kéc-x : we - continuative - come - non-future)

ha koscˁác̓mp 'are you looking at me?' (ko-sc-ˁác̓-m-p : me - continuative - look at - indefinite object - ye)

ha koascˁác̓m 'are you looking at us?' (ko-a-sc-ˁác̓-m : us - you - continuative - look at - indefinite object)

8. ko- '1 person object: me, us'

kot'apntés 'he shot at me' (ko-t'ap-n-tés : me - aim at - completive - he)

kowéks 'he saw me' (ko-wék-s : me - see - he)

kowékntm 'he saw us' (ko-wék-n-tm : us - see - completive - he)

koscλ'aáms 'he is searching for me/us' (ko-sc-λ'a-ám-s : me/us - continuative - seek - indefinite object - he)

9. kn- 'I'

knscpex̣x 'I am hunting' (kn-sc-pex̣-x : I - continuative - hunt - non-future)

knwekm 'I saw something' (kn-wek-m : I - see - indefinite object)

knselt 'I am lost' (kn-sel-t : I - lose - physical condition)

MORPHEME CLASS 3. NOMINALIZER

1. a- 'nominalizer'
2. cn- 'nominalizer: person, object, geographic feature'
3. s- 'nominalizer'
4. sox^{W}- 'agent: one who . . .'
5. sn- 'nominalizer: that which . . ., place for . . .'

Morphologically an Okanagan stem is exclusively neither a noun nor a verb. Thus, kelx can be translated 'hand' or 'it is a hand', and ya^{ʕ}tékn can be translated 'pig' or 'he ran along the fence'. The five nominalizers listed above have the function of marking nouns. While the stem morpheme lax̣ can mean 'friend' or 'be friendly', its use with s- 'nominalizer' results in a noun construction: slax̣t 'friend'.

While not more than one Class 3 nominalizer ever appears in one word, the presence of such a morpheme does not preclude the presence of a nominalizer from a different morpheme class. These examples illustrate the co-occurrence of Class 3 and Class 10 nominalizers.

sp'ecn 'rope' (s-p'ec-n : nominalizer - pinch - nominalizer)

snlep'tn 'woodbox' (sn-lep'-tn : nominalizer - wood - nominalizer)

snkł$^{?}$ełntn 'table' (sn-kł-$^{?}$ełn-tn : nominalizer - at - eat - nominalizer)

snkłmotn 'bench' (sn-kł-mot-n : nominalizer - at - sit - nominalizer)

The references of sox^{W}- 'one who' and sn- 'that which . . ., place for . . .' are quite distinct. With the three other nominalizers

a-, s-, cn- there is some referential overlap. Having the most varied reference is s- being used with persons, places, things animate, inanimate, concrete and abstract. The reference of cn- is more restricted, being used with persons, concrete objects and geographical features, while that of a- is restricted to living things.

Examples showing the absence and presence of the five nominalizers follow.

a-	nk'sels 'he is mean'	ank'séls 'mean man'
	cgep 'it is upright'	acgép 'tree'
	mnemłtt 'we'	tamnémłtt 'we (emphatic)'
	yaxés nxelsm 'he looked down into the valley'	yaxés eanxélsm 'he is a person who looks down into the valley'
	cnt'kos 'he is blind in one eye'	acnt'kós 'one-eyed man'

A comparison of acnt'kos 'one-eyed man' with nt̓kos 'Ace (playing card)' shows that presence of this nominalizer is semantically conditioned.

s-	opólawx 'it is grassy'	sopólawx 'grass, hay'
	q'oc 'he is fat'	sq'oct 'body fat'
	qelt 'he reached the summit'	sqelt 'hilltop'
	nek'mn 'knife'	snek'mn 'knife blade'

The presence of s- is optional in the form astk'élt 'thy son'.[39]

sox^{w}-	trqam 'he danced'	sox^{w}trqám 'dancer'
	tyaqt 'he fought'	sox^{w}tyáqt 'fighter'
	meƛ'm 'he painted'	sox^{w}meƛ'm 'painter'

sn-	q̱'emén 'book'	snq'emén 'school'
	nk^{W}koác 'it is night'	snk^{W}koác 'night time'
	sx̣alx̣ált 'day'	snx̣alx̣ált 'day time'

In these examples sn- contains the idea of location in time or space.

In the pair nk'maplqs 'bay', snk'k'maplqs 'little bay' we find sn- occurring only in the diminutive form. We speculate that the former word, being in common use (as a name) has seen abbreviation of sn- to n- with a confusion of n- with the Class 6 morpheme n- 'at'. The diminutive form, being used less frequently, has retained the morpheme sn-.

For 'sister' both sntxtxos and txtxos have been recorded.

cn-	nc'letk^{W} 'it is standing in the water'	cn'letk^{W} 'fencepost set in water'
	nwest 'it is high'	cnoés 'sunrise'

Not every Okanagan noun is marked with a Class 3 nominalizer. The following examples lack these prefixes, but include Class 1 and 2 morphemes, t'e- 'article' and en- 'my', which frequently accompany nouns.

tekłq^{W}aylx^{W} 'the gray horse'

enkélx 'my hand'

Examples of Class 3 Morphemes

1. a- 'nominalizer'

asél ac'lc'ál emólx 'the two upright objects are Balms of Gilead'

(a-c'l-c'al : nominalizer - iterative - be upright)

acnt'kós 'one-eyed person' (a-c-n-t'k-ós : nominalizer - durative - in - blind - eye)

tenáqs acnáx^{W}t 'there's one galloper, i.e. horse' (a-c-náx^{W}-t : nominalizer - durative - gallop - moving along)

akłx^{W}ména 'Trout Creek' (also named 'Sheep Creek') (a-kł-x^{W}m-éna : nominalizer - at - red - small object)

ank'séls 'mean man' (a-n-k's-éls : nominalizer - in - bad - heart)

naqs acgép 'one tree' (a-c-gép : nominalizer - durative - upright object)

2. cn- 'nominalizer: object, person, geographical feature'

cnm^{ʕ}aétk^{W} 'object lying in water' (cn-m^{c}a-ét-k^{W} : nominalizer - long object lies - abundance - water)

cntq$^{W'}$etk^{W} 'object lying in water' (cn-tq$^{W'}$-et-k^{W} : nominalizer - lie - abundance - water)

cnc'letk^{W} 'vertical object in water' (cn-c'l-et-k^{W} : nominalizer - be upright - abundance - water)

cngepk^{W} 'vertical object in water' (cn-gep-k^{W} : nominalizer - be upright - water)

cnla^{ʕ}áwtm 'gulch' (cn-la^{ʕ}-áwt-m : nominalizer - surfaces approach - side by side - body)

3. s- 'nominalizer'

stxmen 'comb' (s-tx-men : nominalizer - comb - instrument)

sxonétk^{W} 'large waterfalls' (s-xon-ét-k^{W} : nominalizer - fall - abundant - water)

sqelx^{W} 'Indian' (s-qəl-x^{W} : nominalizer - person - man)

sp'ecn 'rope' (s-p'ec-n : nominalizer - squeeze - nominalizer)

sk'ot 'fifty cents' (s-k'ot : nominalizer - half)

sk^{w}rx̣an 'crane bird' (s-k^{w}r-x̣an : nominalizer - yellow - legs)

skencót 'Englishman' (s-ken-cót : nominalizer - king - George)

slep' 'wood, lumber' (s-lep' : nominalizer - wood)

sx^{w}elmn 'Devil' (s-x^{w}e-l-mn : nominalizer - eject - illative - instrument)

staɬm 'boat' (s-taɬ-m : nominalizer - waterproof - body)

sp'men 'drumstick' (s-p'-men : nominalizer - hit with long object - instrument)

sttmtem 'clothes' (s-t-tm-tem : nominalizer - location - iterative - stuff)

skokósnt 'star' (s-ko-kós-n-t : nominalizer - small object - fire - locative - integral characteristic)

steek^{w} 'spark' (s-tek^{w}-IP : nominalizer - spark - incomplete process)

sox^{w}áp 'flame' (s-ox^{w}-áp : nominalizer - flame - body)

sok^{w}t 'crawling' (s-ok^{w}-t : nominalizer - crawl - move along)

sqelt 'summit' (s-qel-t : nominalizer - top - integral characteristic)

sopólawx 'grass, hair' (s-op-ólawx : nominalizer - hair-like object - land)

sq'oct 'fat' (s-q'oc-t : nominalizer - fat - integral characteristic)

sq'et 'rain' (s-q'et : nominalizer - rain)

sx̣alx̣ált 'day' (s-x̣al-x̣ál-t : nominalizer - iterative - day - integral characteristic)

snek'mn 'blade' (s-nek'-mn : nominalizer - cut - instrument)

sx̣wa 'dried bear meat' (s-x̣w-a : nominalizer - dry - living creature)

4. soxʷ- 'agent: one who. . . .'

soxʷtrqám 'dancer' (soxʷ-tr-q-ám : one who - turn - describing a curve - body)

soxʷk'olcncótn 'cook' (soxʷ-k'ol-cn-cót-n : one who - make - mouth - self - nominalizer)

soxʷk'ólm 'worker' (soxʷ-k'ól-m : one who - make - indefinite object)

soxʷtyáqt 'fighter' (soxʷ-tyáq-t : one who - fight - moving along)

soxʷccaʔnwéwx 'boxer' (soxʷ-c-caʔ-n-wéwx : one who - diminutive - punch - locative - face to face)

soxʷméƛ'm 'painter' (soxʷ-méƛ'-m : one who - daub - indefinite object)

soxʷlk'ám 'policeman' (soxʷ-lk'-ám : one who - tie up - indefinite object)

soxʷpéx̣m 'hunter' (soxʷ-ṗéx̣-m : one who - hunt - indefinite object)

soxʷt'óxt 'pilot' (soxʷ-t'óx-t : one who - fly - moving along)

soxʷmarém 'doctor' (soxʷ-marém : one who - administer)

soxʷqéclx 'runner' (soxʷ-qéc-lx : one who - run - physical exertion)

5. sn- 'nominalizer: that which, place for'

snéna 'owl' (sn-éna : that which - ears)

snk'lep 'coyote' (sn-k'l-ep : that which - dark(?) - bottom)

snlep'tn 'woodbox' (sn-lep'-tn : place for - wood - nominalizer)

snk'aˤmn 'church' (sn-k'aˤ-mn : place for - pray - instrument)

snt'amén 'stone pestle' (sn-t'a-mén : place for - pound - instrument)

snłqʷmen 'root house' (sn-łqʷ-men : place for - store - instrument)

snlk'men 'jail' (sn-lk'-men : place for - tie up - instrument)

snˤac̓éna 'earring' (sn-ˤac̓-éna : nominalizer - look at - ears)

snk'mekn 'person's back' (sn-k'm-ekn : nominalizer - body - back)

sntmtmnetn 'cemetery' (sn-tm-tm-ne-tn : place for - iterative - cover - corpse - nominalizer)

snt'sqáxatn 'stable' (sn-t'-sqáxa-tn : place for - instrumental - horse - nominalizer)

snatomopéltn 'garage' (sn-atomopél-tn : place for - car - nominalizer)

snlokosótn 'pig sty' (sn-lokosó-tn : place for - pig - nominalizer)

snt'k'ewlxtn 'doorstep' (sn-t'-k'ew-lx-tn : place for - instrumental - climb - physical exertion - nominalizer)

snamótn 'chair' (sn-am-ót-n : place for - sit - in position - nominalizer)

snq^{W}'anłktn 'farm' (sn-q^{W}'-an-łk-tn : place for - grow - place - plants - nominalizer)

snq'ltełx^{W}tn 'hospital' (sn-q'l-t-eł-x^{W}-tn : place for - sick - physical condition - sheltered - house - nominalizer)

snq^{W}'ałqnéłx^{W} 'teepee smoke hole' (sn-q^{W}'ał-qn-éł-x^{W} : place for - dark brown - head - sheltered - house)

snk'k'maplq̣s 'small bay' (sn-k'-k'm-ap-lq̣s : nominalizer - diminutive - body - bottom - bottom)

snx̣alapcén 'sunrise' (sn-x̣al-ap-cén : nominalizer - day - time - edge)

snx̣alx̣ált 'daytime' (sn-x̣al-x̣ál-t : nominalizer - iterative - day - natural characteristic)

sn^{ʕ}acós 'trap' (sn-^{ʕ}ac-ós : place for - tie up - body)

snpłólawx 'shoot' (sn-pl-ólawx : nominalizer - grow - ground)

snkłmotn 'bench' (sn-kł-mot-n : place for - on - sit - nominalizer)

snkł$^{?}$ełntn 'table' (sn-kł-$^{?}$ełn-tn : place for - at - eat - nominalizer)

snq̣'emén 'school' (sn-q'e-mén : place for - writing - instrument)

MORPHEME CLASS 4. ADVERB

Okanagan has two Class 4 morphemes ta- 'negative' and ła- 'subordinate'. We note below their occurrence in certain syntactic constructions. They commonly occur with Class 5 verbalizers and thus appear in verb forms. We have no examples of the two morphemes occurring together in a single utterance.

The negative morpheme ta- accompanies the independent particle lot 'not', and here follows the pronoun kn- 'I'.

knck'olm 'I am working; lot kntack'ólm 'I am not working'

It does not co-occur with an overt Class 5 aspect marker.

lot knsck'olx 'I am not working'; lot' escmállaẋax 'I did not lie'; lot' esk'ólm 'I did not work'.

The aspect markers here are sc- 'continuative aspect' and s- 'customary aspect'. But ta- does accompany the completive verb form.

lot kntaẋást 'I am not very well'

We find it with other Class 5 verbalizers:

kł- 'possess': lot kntakłtóm 'I have no mother'

c- 'durative': lot kntacwékm 'I did not see them'

The subordinate morpheme ła- has a function resembling that of the subordinating conjunction in English. Here we use it after the morphemes kn- 'I' and ko- 'me'.

knckec 'I came here'; knłckec 'when I came here. . . .'

koʕac̓ʕác̓stx^{w} 'you were watching me'; kołʕac̓ʕác̓stx^{w} 'if you were watching me . . . .'

When this morpheme is used in a verb form, another verb form without

the morpheme is frequently in close accompaniment, functioning as a main verb.

sckenx 'what is he doing?' (Verb)

yaxés sckenx kałck'ólm 'why is he working?' (Subject + main verb + subordinate verb)

k'akén exé 'where is she?' (Verb + subject)

k'akén łsxoyx 'where is she going?' (Main verb + subordinate verb)

penkén 'when is it?' (Verb)

penkén mek^{w}łckéc 'when are you coming?' (Main verb + subordinate verb)

The utterances that include the subordinate morpheme ła- are analyzed in the examples.

Examples of Class 4 Morphemes

1. ta- 'negative'

lot kntakłtóm 'I have no mother' (kn-ta-kł-tóm : I - negative - possess - mother)

lot pot kntax̣ást 'I don't feel very well' (kn-ta-x̣ás-t : I - negative - good - physical condition)

lot' énca tanéxlmn 'I do not hear anything' (ta-néx-l-m-n : negative - hear - illative - instrument - I)

lot k^{w}tacq^{w}élm 'you are not cheating' (k^{w}-ta-c-q^{w}él-m : thou - negative - durative - cheat - indefinite object)

lot' etawékn 'I have not seen him yet' (e-ta-wék-n : article - negative - see - I)

2. ła- 'subordinate'

mekʷłckéc 'you are coming' (subordinate) (me-kʷ-ł-c-kéc : anticipation - thou - subordinate - hither - come)

knłckecx 'when I came . ..' (kn-ł-c-kec-x : I - subordinate - hither - come - non-future)

kołˁac̓ˁác̓stxʷ 'if you were watching me, ...' (ko-ł-ˁac̓-ˁác̓-s-txʷ : me - subordinate - iterative - look at - customary - thou)

yaxés sckenx kałck'ólm 'why is he working?' (ka-ł-c-k'ól-m : location - subordinate - durative - work - indefinite object)

łałkécx 'when he got back' (ła-ł-kéc-x : subordinate - back - come - non-future)

kʷłałckécx 'on your return' (kʷ-ła-ł-c-kéc-x : thou - subordinate - back - hither - come - non-future)

łsc'axélx 'the reasons being' (ł-sc-ˀaxé-lx : subordinate - continuative - thus - 3 person pluralizer)

ckenx kepłctqʷtqʷt'áqʷ 'why do you keep screaming?' (ke-p-ł-c-tqʷ-tqʷ-t'áqʷ : indeed - ye - subordinate - durative - scream - scream - scream)

k'akén łsxoyx 'where is she going?' (ł-s-xoy-x : subordinate - customary - go - non-future)

MORPHEME CLASS 5. VERBALIZER

An Okanagan utterance with a Class 5 morpheme is called a verb. There are six Class 5 verbalizers: two of them expressing aspect, the others expressing intransitivity, possession, duration and a type of optative. They are

1.	n-	'intransitive'	4.	s-	'customary aspect'
2.	ɬakɬ-	'possession'	5.	sc-	'continuative aspect'
3.	c-	'durative'	6.	ks-	'intentional'

Their presence in any given utterance is limited to one.

The verbalizing function of this morpheme class can be illustrated with n- 'intransitive'.

kkwap	'dog'	nkkwap	'it is a dog'
kok^{W}eyóma	'little one'	nkok^{W}eyóma	'it is a little one'

ɬakɬ- 'possess'

Okanagan has no root morpheme corresponding to the English 'have'.[40] Possession is expressed with prefix ɬakɬ-.

kntom	'I am a mother'	knɬakɬtom	'I have a mother'
encétx^{W}	'my house'	knɬakɬcétx^{W}	'I have a house'

We find occasional examples of ɬakɬ- being abbreviated to kɬ-.

ha k^{W}kɬkkwap	'do you have a dog?' (k^{W}- 'thou', kkwap 'dog')
ha k^{W}kɬkwap	'do you have a horse?' (kwap 'horse')

Here it is homophonous with kɬ- 'on, at', a variant of the Class 6 preposition k'ɬ-.

Possession is also expressed with the Class 2 morphemes en- 'my', an- 'thy'.

naqs enkkwáp 'I have one dog' (naqs 'one')

naqs knɬakɬkkwáp 'I have one dog' (kn- 'I', ɬakɬ- 'possess')

ánwe ankwáp 'that is your horse' (ánwe 'thou', kwap 'horse')

ánwe k^{w}ɬakɬkwáp 'you, too, have a horse' (k^{w}- 'thou')

c- 'durative'

In a discussion of verbs in Interior Salishan languages Reichard writes,

> In CA and Kal static and active verbs are differentiated . . . (they) may be personalized by affixing the intransitive pronouns.[41]

Okanagan marks static and active verbs morphologically with the use of Class 5 verbalizer c- 'durative', static, and Class 12 morpheme -am 'indefinite object', active. We contrast them.

Static: kncnqaqaxnékst 'I have my arms folded' (kn 'I' - c 'durative' - n 'on' - qaq 'bend' - àxn 'arm' - eks 'hand' - t 'lasting feature')

Active: knnqaqaxnékstm 'I folded my arms' (kn 'I' - n 'on' - qaq 'bend' - axn 'arm' - eks 'hand' - t 'lasting feature' - am 'indefinite object')

The conditions static and active are, however, not mutually exclusive or opposite. The durative notion expressed by c- indicates that the verbal state is endured by the subject, while the suffix -am indicates that the verbal action is applied to an entity distinct from the subject.

c- 'durative': kocnkóst 'we are lost'

kncttq^{w}'ancótax 'I am going to be lying down'

knck'rpaqs 'I have a hooked nose'

-am 'indefinite object': knt'apám 'I fired at something'

sccaq'ámtt 'we are throwing things'

The two morphemes co-occur in kncwelóm 'I could see them', which contrasts with knwekm 'I saw them'. Utterances with c- 'durative' are analyzed in the examples. The 'indefinite object' morpheme is further discussed under Morpheme Class 12 (pages 269-72) and on pages 193-4.

When a nominalizer accompanies c- 'durative' the utterance is then considered a noun, and c- is part of the stem.

a- 'nominalizer': acgép 'tree'

acnt'kós 'one-eyed person'

ks- 'intentional; simple or inevitable future; imperative'

This prefix is often used with future reference.

koksxóyax 'we intend going' (ko- 'we', xóy 'go', -ax 'future')

knksnƛ'létk^{W}ax 'I am going to drown' (kn- 'I', n- 'in', ƛ'l 'die', -ét 'abundant', -k^{W} 'water', -ax 'future')

ksweks 'he will see it' (wek 'see', -s 'he')

As an imperative we find it frequently used with the negative particle lot 'not'.

lot' aksnk'séls 'do not be mean!'

It is also used in prayers.

yayát sx̣alx̣ált seɬn koaksx^{W}écɬtm 'Give us this day our daily bread' (every - day - food - give it to us)

koaksx^{W}éltm ek'ást 'Deliver us from evil' (move us away from it - evil)

We contrast ks- 'intentional' with the Class 1 morpheme me- 'anticipation', using nénwes 'later' and ʔeɫn 'eat'.

Intentional: nénwes meeɫn enapéls 'I will eat my apple later'

Anticipation: nénwes knksʔéɫnax enapéls 'I shall eat my apple later'

Aspect

Three aspects are expressed in Okanagan verb forms: continuative, customary, and completive.[42] The continuative expresses continued action or being, without specific time reference. The customary indicates a customary or habitual action. Sometimes it indicates an act that follows or results from a previous act, a sort of cause and effect situation.[43] The completive signifies an action in its totality, as a *fait accompli*, without regard to duration, frequency of occurrence, location in time or causation.

There are two aspect prefixes (Class 5) and two aspect suffixes (Class 11).

Aspect Morphemes

	Class 5	Class 11
Continuative	sc-	
Customary	s-	-s
Completive		-n

Occurrence of aspect morphemes varies with accompanying pronoun(s).

1. Continuative. There is only one continuative morpheme, sc-. This prefix occurs with both transitive and intransitive verbs, and precedes the stem kec 'come' in the following examples.

Transitive: koasckécm 'you are meeting me'

Intransitive: k^{W}sckecx 'you are coming'

2. Customary. There are two customary morphemes, s- and -s. The former occurs with both transitive and intransitive verbs, and precedes the stem kec 'come' in the following examples.

Transitive: koskécstx^{W} 'you met me (as usual)'

Intransitive: k^{W}skecx 'you came (as usual)'

The other customary morpheme, -s, occurs only with transitive verbs. It follows the stem in the first of the two foregoing examples. With customary transitive verbs the presence of the customary prefix s- is optional.

Customary Transitive: koskécstx^{W} 'you met me' : s- prefix present

Customary Transitive: kokécstx^{W} 'you met me' : s- prefix absent.

The following examples contrast customary verb forms with completive and continuative forms. There is no completive prefix. The continuative morpheme sc- precedes the verb stem in the examples, as does the customary prefix. We use the stem morphemes mot 'live' and ʔeɬn 'eat'.

Completive: komót alá 'we lived here' (alá 'here') : no completive marker

Customary: kosmót alá 'we customarily live here'

Completive: ha k^{W}'eɬnx ápna 'have you eaten today?' (ápna 'today, now')

Continuative: ha k^{W}sc'eɬnx ápna 'are you eating now?'

Customary: ha k^{W}sʔeɬnx ápna 'are you customarily eating now?'

The customary notion is not always apparent in verb forms where s- is present. The morpheme sometimes suggests a resultant act or state.

Thus knsqʷlqʷelt selxcn 'I speak Okanagan' can mean 'I speak Okanagan customarily (because I am an Okanagan Indian)' or 'I speak Okanagan (now, as a result of my having been taught it)'.

3. Completive. There are two customary aspect morphemes, a prefix and a suffix, but there is only one completive aspect morpheme: a suffix. This suffix is a Class 11 morpheme; and we discuss its use under that class heading. Class 11 aspect markers do not appear with intransitive verb forms; only Class 5 aspect prefixes occur here. However, there is no completive aspect prefix. Consequently an intransitive verb expressing completive aspect is lacking in an aspect prefix. We analyze typical intransitive verbs in the following diagram, using the stem xoy 'go'.

	Pronoun	Aspect	Stem	Tense	
Continuative:	kn	sc	xoy	x	'I am going'
Customary:	kn	s	xoy	x	'I customarily go'
Completive:	kn		xoy	x	'I go'[44]

Aspect prefixes are Class 5 morphemes. Thus, when an intransitive verb occurs without a Class 5 prefix, we consider that verb to express completive aspect. Although completive aspect is never overtly marked with intransitive verbs, we justify the status of such an aspect with reference to transitive verbs. In transitive constructions we find overt markers expressing all three aspects: continuative, customary, and completive. By reference to an absence of Class 5 morphemes in an intransitive construction, we establish the presence of completive aspect.

Okanagan has thirty-two pronoun affixes, some prefixes and some suffixes. When we examine the co-occurrence of each of these pronouns with specific aspect markers, we notice a pattern emerging. In the following chart we list the Class 2 pronoun prefixes and the Class 12 pronoun suffixes and indicate the verb constructions in which they appear. We use these abbreviations:

ICn = intransitive continuative   TrCn = transitive continuative
ICs = intransitive customary   TrCs = transitive customary
ICm = intransitive completive   TrCm = transitive completive

CO-OCCURRENCE PATTERNS OF PRONOMINAL AND ASPECTUAL MARKERS

	ICn	ICs	ICm	TrCn	TrCs	TrCm
en- '1 person subject/possessive'	x	x	x	x		
an- '2 person subject/possessive'	x	x	x	x		
p- 'ye subject'	x	x	x	x[45]		
p- 'ye object'				x		
k^w- 'thou'	x	x	x	x		
k^w- 'thee'				x		
ko- '1 person subject: I, we'	x	x	x	x		
ko- '1 person object: me, us'				x	x	x
kn- 'I'	x[46]	x	x			
-am 'indefinite object'	(x)	(x)	x	x		
-mp 'ye subject/possessive'	x	x	x	x		
-t 'we' (follows 2 person object)					x	x
-t 'thou imperative, transitive completive'						
-te 'ye imperative, transitive completive'						
-tep 'ye subject'					x	x
-tem '3 person subject'					x	x
-tem '3 person object'					x	
-tem 'we'					x	x
-ten 'I'					x	x
-tek^w 'thou imperative, transitive customary'						
-tek^{w}e 'ye imperative, transitive customary'						
-tex^w 'thou'					x	x
-tom '2 person object'					x	
-tt 'we, our'	x	x	x			
-n 'I' (follows 2 person object)					x	x
-łolm 'ye object'						x
(-lx '3 person pluralizer'	x	x	x	x	x	x)
-ce 'thee'						x
-s '3 person subject/possessive'	x	x	x	x		
-s '3 person subject, transitive'					x	x
-we 'ye imperative'						
-x 'thou imperative'						

Most noticeable from this chart is the fact that two systems of subject pronouns are in use in Okanagan. One system is used with intransitive verbs and transitive continuative verbs, while another appears with transitive customary and completive verbs.[47] The morpheme -lx '3 person pluralizer' is used with both systems.

Examples of Class 5 Morphemes

1. n- 'intransitive'

nk'ast 'it is dirty' (n-k'as-t : intransitive - bad - physical condition)

nwest 'it is high' (n-wes-t : intransitive - high - integral characteristic)

t'enk'ém 'it is dark' (t'e-n-k'ém : article - intransitive - dark)

tenx̣ál 'it (lake) is clear' (te-n-x̣ál : article - intransitive - daylight)

2. łakł- 'possess'

kołakłt'ék^{W}'t 'we have a lake' (ko-łakł-t'é-k^{W}'-t : we - possess - lie in position - water - natural characteristic)

oc k^{W}kłkkwap 'have you a dog?' (k^{W}-kł-k-kw-ap : thou - possess - diminutive - small - feet)

takłcáwt 'it is your business' (t-a-kł-cá-wt : article - thou - possess - personal concern - condition)

lot kntakłtóm 'I have no mother' (kn-ta-kł-tóm : I - negative - possess - mother)

3. c- 'durative'

eckłcqétk^{W} 'it is floating' (e-c-kł-cq-ét-k^{W} : proclitic - durative - on - be in position - abundant - water)

acnt'kós 'one-eyed person' (a-c-n-t'k-ós : nominalizer - durative - in - be blind - eye)

acgép 'tree' (a-c-gép : nominalizer - durative - long object stands)

ha kʷck'olx 'are you working?' (kʷ-c-k'ol-x : thou - durative - work - non-future)

ck'rpaqs 'he has a hooked nose' (c-k'r-p-aqs : durative - hook - body - nose)

cken 'how much?' (c-ken : durative - interrogative quantity)

stem ack'ólstp 'what are you doing?' (a-c-k'ól-s-tp : nominalizer - durative - do - customary - ye subject)

kocnkóst 'we are lost' (ko-c-n-kós-t : we - durative - in - stray - moving along)

kncnqaqaxnékst 'I have my arms folded' (kn-c-n-qaq-axn-éks-t : I - durative - on - bend - arm - hand - lasting feature)

kncwekm 'I could see them' (kn-c-wek-m : I - durative - see - indefinite object)

4. s- 'customary'

sˤac'stmn 'I am looking at you' (s-ˤac'-s-tm-n : customary - look at - customary - thee - I)

koskéc 'we came' (ko-s-kéc : we - customary - come)

st'aqʷmp 'you called out' (s-t'aqʷ-mp : customary - shout - ye)

alá knsmotx 'I sit here alone' (kn-s-mot-x : I - customary - sit - non-future)

knsp'ap 'then I was struck with a stick' (kn-s-p'-ap : I - customary - hit with long object - body)

asél est'áptt 'we shot two' (e-s-t'áp-tt : proclitic - customary - shoot at - we)

k'akén łsxoyx 'where is she going?' (ł-x-xoy-x : subordinate - customary - go - non-future)

5. sc- 'continuative'

koscmaréms 'he is doctoring me' (ko-sc-marém-s : me - continuative - administer - he)

knsc'ełnm 'I am eating something' (kn-sc- ełn-m : I - continuative - eat - indefinite object)

knsckenx 'what am I doing?' (kn-sc-ken-x : I - continuative - interrogative - non-future)

scq'eméx 'he is writing' (sc-q'e-méx : continuative - mark - use instrument)

pot' escˤác̓m 'I am still looking at it' (e-sc-ˤác̓-m : I - continuative - look at - indefinite object)

scƛ'aams 'he is fetching something' (sc-ƛ'a-am-s : continuative - fetch - indefinite object - he)

ha scˤac̓mp 'are you looking now?' (sc-ˤac̓-mp : continuative - look at - ye)

kʷescˤáymtm 'I am angry with you' (kʷ-e-sc-ˤáy-m-t-m : thee - I - continuative - throat region - body - physical condition - indefinite object)

6. ks- 'intentional, simple or inevitable future, mild imperative'

ksc'ałméxax 'it is going to get cold' (ks-c'ał-méx-ax : future - cold - usitative - future)

lot' aksnk'séls 'do not be mean!' (a-ks-n-k's-éls : thou - imperative - in - bad - heart)

koaksxʷéćłtm 'Give us (this day. . . .)' (ko-a-ks-xʷéc-łt-m : us - thou - imperative - give - dative - indefinite object)

eksmg̣ám 'I will fasten it' (e-ks-mg̣-ám : I - intentional - pin - indefinite object)

knksnƛ'létkʷax 'I shall drown!' (kn-ks-n- 'l-ét-kʷ-ax : I - inevitable future - in - die - abundance - water - future)

enx̣amének eksˤác̓m 'I want to see' (e-ks-ˤác̓-m : I - intentional - look at - indefinite object)

ksxóyaxlx 'they are going' (ks-xóy-ax-lx : intentional - go - future - 3 person pluralizer)

ksweks 'he can see it' (ks-wek-s : intentional - see - he)

ksweknttm 'we are bound to see it' (ks-wek-n-tm : inevitable - see - completive - we)

MORPHEME CLASS 6. PREPOSITION-ADVERB

1. t- 'location: at, on, near, there; thither, towards'
2. t'- 'by: instrumental, agentive'
3. n- 'in, into, on, onto'
4. ƛ- 'from'
5. ł- 'back'
6. ł- 'again'
7. l- 'location'
8. c- 'movement at or to person or thing; hither; near a place'
9. k'ł- 'on, at, covering'
10. k'l- 'into, towards, for the benefit of'
11. k- 'movement to or at a specific place'

The notions expressed by this group of morphemes are in someway comparable to those expressed by the groups of words in English traditionally referred to as prepositions and adverbs, especially those which indicate spatial relationships. For example, klcetx^{w} 'to the house' begins with the preposition kl- 'towards'; and kncxoy 'I came here' includes the Class 6 morpheme c- 'hither'.

The question arises whether the eleven morphemes in this group are members of one or two morpheme classes, since on occasions two Class 6 morphemes co-occur in a single utterance.

knłckec 'I came back here'   tkłmelx^{w} 'wife'

Here ł- 'back' and c- 'hither' appear together, as do t- 'location' and kł- 'covering'. We feel that double occurrence is insufficient justification for the establishment of two distinct morpheme classes.

We note a similar double occurrence with Class 2 pronouns, Class 8 stem morphemes, and Class 10 nominal affixes. Reichard subdivided a similar group of prefixes in Coeur d'Alene, but for notional reasons.[48]

We have already mentioned a partial resemblance between certain Class 1 morphemes and Class 6 morphemes.[49] But these two groups of morphemes clearly belong in two different morpheme classes for distributional reasons.

A possible historical relationship exists between Class 6 morphemes and certain Class 8 stem morphemes.[50] In the absence of reliable criteria, relationships are difficult to establish; but worth comparing are the following.

CLASS 6 MORPHEME	CLASS 8 STEM MORPHEME
t- 'location'	t'aq$^{w'}$ 'lie down'
	t'eʔ 'lie in position'
	tk 'prop up in place'
c- 'near a place, l- 'location'	c'al 'stand'
	cq 'be in position'
l- 'location'	la^{ʕ} 'surfaces approach'

These similarities become apparent in the process of morphemic analysis. For instance t'ek$^{w'}$t 'lake', t'éna 'ear', t'et'emóɬ 'lazy' are analyzed as follows, the stem being underlined.

t'-ék$^{w'}$-t : lie in position - water - integral characteristic

t'-éna : lie in position - small object

t'e-t'e-móɬ : iterative - lie in position - often

An alternate analysis for t'ek$^{w'}$t and t'éna would be to consider the

initial morpheme to be the Class 6 morpheme, t- 'location'. The following morpheme would be a stem morpheme; and all stem morphemes have an initial consonant in their base form, in the present instance, glottal stop. The automatic morphophonemic rule, C + ʔ --> C', would apply thus:

t + ʔéna (location - small object) --> t'éna 'ear'

t + ʔék^W + t (location - water - natural characteristic) -->
t'ék$^{W'}$t 'lake'

Under such circumstances, the similarity between a Class 6 morpheme and a stem morpheme is increased.[51]

We illustrate the preposition-like function of Class 6 morphemes with some terms relating to horses. In each case these morphemes form a sort of prepositional phrase with the Class 10 suffix that occurs finally in each term.

t- : s-t-k^{W}r-k^{W}r-éc'a 'dappled navaho coloured horse' (nominalizer - on - iterative - yellow - hair)

s-t-x^{W}m-x^{W}ám-ena 'pinto with red ears' (nominalizer - on - iterative - red - ears)

c- : c-x^{W}am-qn 'roan' (near - red - head)

te-c-ɬe-álx^W 'strawberry pinto' (the - on - mottled - hide)

c-k^{W}r-qen 'strawberry roan' (towards - yellow - head)

a-c-q^{W}á-ya-qn 'blue horse' (nominalizer - towards - blue - top - head)

a-c-k^{W}l-tap-és 'cream-coloured horse with a red dorsal line' (nominalizer - towards - light brown - stripe - body)

k'ɬ- : te-kɬ-k'át-lx^W 'brown horse' (the - on - brown - hide)

te-kł-pa^{ʕ}-álx^{W} 'light buckskin-colour horse' (the - on - buckskin colour - hide)

te-kł-k^{W}él-x^{W} 'chestnut bay' (article - on - light brown - hide)

te-kł-póq-lx^{W} 'mouse coloured horse' (article - on - gray - hide)

k- : k-pyeq-lps 'white-maned horse' (movement at - white - mane)

k-pyéq-aqn 'white-maned sorrel' (movement at - white - head)

The above examples also illustrate the difficulty of assigning an English gloss to each of the four prefixes. The problem is rendered the greater because informants do not recognize an affix that has been isolated from a stem. It can be presented only in conjunction with a stem. And it is sometimes suspected that co-occurrence restrictions obtain between certain prefixes and certain stems, witness the following.

t-k^{W}en-ps-n 'I caught him by the tail' (k^{W}en 'catch', ops 'tail')

k-^{ʕ}ac-óps-n 'I tied him by the tail' (^{ʕ}ac 'tie')

The t- and k- morphemes cannot be interchanged in these utterances.

Class 6 morphemes do not invariably appear with Class 10 suffixes, as in the examples quoted above. They frequently appear in utterances that completely lack suffixes.

knłckec 'I came back here'   ełłxóy 'I went back again'

Here the stems are kec 'come' and xoy 'go', and the Class 6 prefixes are ł- 'back', ł- 'again', c- 'hither'. At this point their function is adverbial rather than prepositional.

The last two examples illustrate the fact that Class 6 morphemes sometimes occur in pairs. Other examples are:

k^{W}łałckéc 'when you return' (ł- 'back', c- 'hither')

ntxoetk^{W} 'large valley' (n- 'in', t- 'location')

cmarém t'lq^{W}'aylqs 'they are church wed' (t'- 'agentive', l- 'location')

entkłmélx^{W} 'my wife' (t- 'location', kł- 'on')

It appears that in combination these morphemes appear in a set order with respect to each other. For examples, c- 'hither' is never preceded by any other Class 6 member, and l- is never followed by any other Class 6 member. But there is no convention whereby this Class is represented in every utterance.

An examination of the canonical forms of these Class 6 morphemes shows that nine are composed of a single consonant and two are composed each of two consonants.[52] These two are k'ł- and k'l. Because the other nine morphemes are each composed of a single phoneme, the question arises whether k'ł- is actually two morphemes. The possibility is supported by the fact that Class 6 morphemes commonly appear in pairs, and by the fact that we have the separate morphemes k- and ł-. Similarly, we have the separate morphemes k- and l- as well as k'l-.

We reject the hypothesis that k'ł- and k'l are each composed of constituent morphemes for the following reasons.

1. k'ł- and k'l- each has a variant lacking glottalization: kł- and kl-. If we decided that k- was a constituent morpheme of k'ł- and k'l-, we would have a variant of k- that was sometimes glottalized,

but only before ł- and l-. No other Okanagan morpheme has such a patterning.

2. If we examine examples where ł- and l- are absent, it appears that preposition-adverbs occur to a maximum of two per utterance. For instance ntxoetk^{w} 'large valley' and cn$^{?}$ołx^{w} 'he entered' both have two such morphemes, n- 'in, into', t- 'location', and c- 'hither'. We have no cases with three such morphemes. If we consider k'ł- and k'l- each to be a single morpheme, we are still able to state that preposition-adverbs occur to a maximum of two in utterances like tkłmelx^{w} 'wife' and k'łnk'mep 'door' which we analyze as follows.

t-kł-mel-x^{w} : location - on - round body - animal hide

k'l-n-k'm-ep : at - on - body - bottom

Generally, Class 6 morphemes express spatial concepts. The morpheme ƛ- 'from', however, has reference in both space and time: ƛcetx^{w} 'from the house', ƛ'ápna 'from now on'. This latter nonspatial reference is atypical of the morphemes in this class; but in this instance we include the time and space references within the meaning of the single morpheme.[53]

Examples of Class 6 Morphemes

1. t- 'location: at, on, near, there; thither, towards'

stk^{w}ƛostn 'eye' (s-t-k^{w}ƛ-ost-n : nominalizer - location - face - round object - nominalizer)

stq^{w}'ayx̣nx 'Blackfoot Indian' (s-t-q^{w}'ay-x̣n-x : nominalizer - on - black - foot - person)

tk'mekn 'mountain ridge' (t-k'm-ekn : location - body - ridge)

ntxoetk^{W} 'large valley' (n-t-xo-et-k^{W} : in - location - much - abundance - water)

stk'masq't 'sky' (s-t-k'm-asq't : nominalizer - location - body - sky)

stken exé 'what is he doing?' (s-t-ken : customary - location - interrogative)

k^{W}tknknem 'you keep hold of him' (k^{W}-t-kn-kn-em : thou - location - harm - harm - body)

ánwe txoymntx^{W} 'you will see them' (t-xoy-m-n-tx^{W} : thither - go - instrument - completive - thou)

metkécntm 'we are to meet him' (me-t-kéc-n-tm : obligation - thither - come - completive - we)

2. t'- 'by: instrumental, agentive'

cmarém t'lq$^{W'}$aylqs 'they are church-married' (t'-l-q$^{W'}$ay-lqs : by - location - black - clothes)

nek's et'nék'mn 'he cut it with a knife' (e-t'-nék'-mn : proclitic - instrumental - cut - instrument)

sck'amslx t'atomopél 'they struck something with a car' (t'-atomopél : instrumental - car)

eksmgám et'mgmén 'I will fasten it with a pin' (e-t'-mg-mén : proclitic - instrumental - fasten - instrument)

3. n- 'in, into, on, onto'

nc'lólawx 'it is (fence post) in the ground' (c-c'l-ólawx : in - be upright - ground)

nƛ'letk^{W} 'he drowned' (n-ƛ'l-et-k^{W} : in - die - abundance - water)

sec kncnʔołxʷx 'I just came in' (kn-c-n-ʔoł-xʷ-x : I - towards - into - enter - house - non-future)

cnpélxʷwe 'come in!' (c-n-pél-xʷ-we : towards - into - enter - house - ye)

ank'séls 'mean man' (a-n-k's-éls : nominalizer - in - bad - heart)

annk'móps elepót 'the bottom of your cup' (an-n-k'm-óps : thy - in - body - bottom)

knnamtétkʷ 'I am sitting in the water' (kn-n-am-t-ét-kʷ : I - in - sit - physical condition - abundance - water)

ntxoetkʷ 'large valley' (n-t-xo-et-kʷ : in - location - much - abundance - water)

nk'stan 'Hell' (n-k's-t-an : in - bad - integral characteristic - place)

nłkaplqs 'bush growing in bottom of hollow' (n-łk-ap-lqs : in - bush - bottom - crescent-shaped)

4. ƛ- 'from'

esteéwtx koƛyayát 'he's the youngest of us all' (ko-ƛ-ya-yá-t : we - from - iterative - all - integral characteristic)

sƛetkʷ 'cool summer spring' (s-ƛ-et-kʷ : nominalizer - from - abundance - water)

ƛt'ekʷ't kncxoy 'I came from the lake' (ƛ-t'-ekʷ'-t : from - lie in position - water - integral characteristic)

ƛ'ápna 'henceforth' (ƛ-ʔápna : from - today)

ƛx̣aláp 'after tomorrow' (ƛ-x̣al-áp : from - daylight - time)

5. ł- 'back'

knłcxoy 'I came back' (kn-ł-c-xoy : I - back - hither - go)

łałkécx 'when he got back' (ła-ł-kéc-x : subordinate - back - come - non-future)

ełłxóy 'I went back again' (e-ł-ł-xóy : I - back - again - go)

kołcp'lák 'we are going back home' (ko-ł-c-p'lák : we - back - towards - return)

6. ł- 'again'

nénwes ełwékncn 'I will see you again later' (e-ł-wék-n-c-n : proclitic - again - see - completive - thee - I)

knłk'olm 'I am working again' (kn-ł-k'ol-m : I - again - work - indefinite object)

nex^{W} kołcót 'tell me again!' (ko-ł-có-t : me - again - tell - thou imperative)

łk'olntm 'we did it again' (ł-k'ol-n-tm : again - do - completive - we)

łłn$^{?}$ołx^{W}s 'she went back in again' (ł-ł-n-$^{?}$oł-x^{W}-s : back - again - in - enter - house - she)

7. l- 'location'

alk'óstn 'grindstone' (a-l-k'ó-st-n : nominalizer - location - move - round object - nominalizer)

elq^{W}spéca 'in a buffalo hide' (e-l-q^{W}s-p-éca : proclitic - location - buffalo - body - removed hide)

steewtx l$^{?}$énca 'he is older than I' (l-$^{?}$énca : location - myself)

koslk^{W}éllxx 'we shall move to a new location' (ko-s-l-k^{W}él-lx-x : we - customary - location - move away - physical exertion - non-future)

8. c- 'movement at or to something or someone; hither; near a place'

ecpáq 'it has white spots' (e-c-páq : article - near - white)

kołcp'lák 'we returned home' (ko-ł-c-p'lák : we - back - movement to - return)

cˤac̓sclx 'they watched him' (c-ˤac̓-st-s-lx : nearby - watch - act deliberately - 3 person - 3 person pluralizer)

knc'ewt 'I stayed close by' (kn-c-ʔewt : I - nearby - be side by side)

mekocwéx 'we expect to camp' (me-ko-c-wéx : expect - we - near - set upright)

kʷckec 'you got here!' (kʷ-c-kec : thou - hither - come)

cxoyx 'come here!' (c-xoy-x : hither - go - thou)

cnʔołxʷx 'come on in!' (c-n-ʔoł-xʷ-x : hither - in - enter - house - thou)

c'ácqa 'he came outside' (c-ʔácqa : hither - outside)

9. k'ł- 'on, at, covering'

knkłttamálaxʷ 'I have no clothes on' (kn-kł-D-tam-álxʷ-aD : I - on - diminutive - cover - skin - diminutive)

snkłmotn 'bench' (sn-kł-mot-n : nominalizer - on - sit - nominalizer)

k'łʔemn 'I waited for him' (k'ł-ʔem-n : at - sit - I)

kłopcén 'beard on chin' (kł-op-cén : at - hair - edge of something)

mekłxʷax̣ntéxʷ 'you should grab his leg' (mo-kł-xʷa-x̣-n-téxʷ : obligation - on - seize - leg - completive - thou)

lot' akskłxonékstm 'do not let go!' (a-ks-kł-xon-éks-t-m : thou - intentional - on - let fall - hands - lasting feature - indefinite object)

k'łʔáyaqnt 'tie it (sack) up!' (k'ł-ʔáy-aq-n-t : at - tie - head -

locative - thou imperative)

k'ɬalmén 'fence' (k'ɬ-al-mén : at - rail - instrument)

10. k'l- 'into, towards, for benefit of'

k'l$^{?}$énca 'towards me' (k'l-$^{?}$énca : towards - myself)

koklkót 'we have moved away' (ko-kl-kót : we - towards - be distant)

ekltmhólawxs 'to his country' (e-kl-tmh-ólawx-s : article - to - country - ground - his)

k'lswet k^{w}ck'olm 'who do you work for?' (k'l-swet : for - whom)

11. k- 'movement to or location at a specific place'

kox^{w}pálq^{w} axá cgep 'this tree caught fire' (k-ox^{w}-p-álq^{w} : movement - flame - subject passively involved - log)

sktmtamt 'cloud' (s-k-IT-tam-t : nominalizer - place - iterative - cover - capable of producing)

kc'éknántm 'we set them alight there' (k-c'-ek-n-á-n-tm : movement - burn - spark - try - place - completive - we)

kopéca 'body hair' (k-op-éca : at - hair - body hair)

kc'ekstn 'cigarette lighter' (k-c'-ek-st-n : place - burn - spark - round object - nominalizer)

ktk^{w}ewsslx 'they put him on top' (k-t-k^{w}e-ws-s-lx : to - location - put - top - 3 person - 3 person pluralizer)

MORPHEME CLASS 7. NOMINAL

Morpheme Class 7 is comparable to Morpheme Class 10 with respect to reference: morphemes in both Classes refer to what are traditionally called nouns. The difference between Class 3 morphemes and the present Class 7 morphemes is, however, greater. While Class 3 morphemes are nominalizers, Class 7 morphemes have no such function; they occur indiscrimately with nominalizers and verbalizers.

The ten Class 7 morphemes are:

1.	po-	'spouse'
2.	tac-	'distributive'
3.	nok$^{w'}$-	'fellow'
4.	ł-	'kin'
5.	ł-	'small object or place'
6.	łł-	'related through spouse'
7.	łł-	'fish'
8.	k'oł-	'partner'
9.	ke-	'person'
10.	ko-	'small object'

They are all consonant initial, some having one consonant, others two, with sometimes a medial or final vowel.

Morpheme Class 7 is small in comparison with the number of morphemes found in 10; but the notions expressed in Class 7 are not found in any other single class. The nominal function of these prefixes is however, found among many Class 10 Nominal-Locative suffixes.[54]

We distinguish Class 7 morphemes from neighbouring Class 6 morphemes on the following bases.

1. Six of the Class 7 morphemes contain a vowel, while none of the Class 6 morphemes do.

2. When a Class 6 morpheme is homophonous with a Class 7 morpheme, the two can be distinguished distributionally with reference to n-

'in, into'. The Class 6 morpheme precedes n-; and the Class 7 morpheme follows n-. For example,

ł-ł-n-$^{?}$oł-x^{w}-s (back - again - in - enter - house - 3 person)

'whe went back in again'

en-n-ł-cq-mén (my - in - small object - be in position - instrument) 'my hay-rack'

In the first example the two preposition-adverbs ł- and ł- precede n-, while in the second example the Class 7 nominal ł- follows n-.

Nominals can be distinguished from stem morphemes on distributional grounds. While Class 8 stems can be uttered in isolation, Class 7 nominals never can. Otherwise stated, Class 7 morphemes are always used with a morpheme from at least one other class: Class 8. This is not the case with stem morphemes.[55]

Class 7 Nominals resemble those morphemes in contiguous classes in the respect that more than one sometimes appears in a single utterance. For example, po- 'spouse' and ke- 'person' co-occur in pokenáqs 'monogamous'; and nok$^{w'}$- 'fellow' and ł- 'kin' co-occur in esnok$^{w'}$łk'ólm 'my workmate'. However, we have no example of one morpheme occurring twice in a single utterance. Thus we posit lł- 'related through spouse' as a unit morpheme quite distinct from ł- 'kin'.

In counting persons, Okanagan uses the personal prefixes ke- and twa-.

kenáqs 'one person'	kasél 'two persons'

twaxoét 'many persons'

These two markers occur only with numerals;[56] ke- precedes specific

numbers like celkst 'five' and opnkst 'ten', while twa- is used only with xoet 'many' and nowhere else. Since ke- never precedes xoet 'many', the two prefixes are in complementary distribution and constitute a single morpheme.

Examples of Class 7 Morphemes

1. po- 'spouse'

exé scposáma 'he has a white wife' (sc-po-sám-a : continuative - spouse - white person - person)

pok^{w}énclx 'they took your wife' (po-k^{w}é-n-c-lx : spouse - take - completive - thee - 3 person pluralizer)

knposáma 'I have a white husband' (kn-po-sám-a : I - spouse - white person - person)

knpoplscót 'I beat my wife' (kn-po-pl-s-cót : I - spouse - beat - body - self)

kopopóƛsc 'he beat my wife' (ko-po póƛ-st-s : me - spouse - beat - cause - he)

knpokenáqs 'I am monogamous' (kn-po-ke-náqs : I - spouse - person - one)

knposqélx^{w} "I have an Indian wife' (kn-po-sqélx^{w} : I - spouse - Indian)

2. tac- 'distributive'

tacnáqs 'one each' (tac-náqs : distributive - one)

tacasél 'two each' (tac-asél : distributive - two)

tac'ópnkst 'ten each' (tac-ʔópn-kst : distributive - ten - hand)

3. nok$^{w'}$- 'fellow'

nok$^{w'}$pɬtmhólawx 'fellow countryman' (nok$^{w'}$-pɬ[57]-tmh-ólawx : fellow - allied - country - land)

nok$^{w'}$cwéxtn 'village' (nok$^{w'}$-cwéx-tn : fellow - camp - nominalizer)

esnok$^{w'}$ɬk'ólm 'my workmate' (e-s-nok$^{w'}$-ɬ-k'ól-m : my - nominalizer - kin - fellow - work - indefinite object)

asnok$^{w'}$ɬkárpntr 'your fellow carpenter' (a-s-nok$^{w'}$-ɬ-kárpntr : thy - nominalizer - fellow - kin - carpenter)

4. ɬ- 'kin'

eɬsésnca 'my younger brother' (e-ɬ-DV́-sn-ca : my - kin - diminutive - young - brother)

eɬkékxa 'my older sister' (e-ɬ-DV́-kx-a : my - kin - diminutive - walk - person)

eɬqáqca 'my older brother' (e-ɬ-qáq-ca : my - kin - brother - brother)

aɬx̣amenkáws 'your sweetheart' (a-ɬ-x̣am-enk-áws : thy - kin - love - source of power - together)

5. ɬ- 'small object or place'

eɬkáp 'my cup' (e-ɬ-káp : my - small object - cup)

eɬpót 'my pot' (e-ɬ-pót : my - small object - pot)

snɬp'x^{w}awsqn 'he is bald' (s-n-ɬ-p'x^{w}-aws-qn : customary - on - small place - shine - middle - head)

ennɬcqmén 'my hayrack' (en-n-ɬ-cq-mén : my - on - small place - be in position - instrument)

ɬɬq'enk 'shiner perch' (ɬ-ɬq'-enk : small object - wide - belly)

6. lɬ- 'related through spouse'

elɬsx̣áx̣a 'my fathers-in-law' (e-lɬ-s-x̣á-x̣a : my - related - kinfolk -

iterative - older person)

ełłsc'éx̣t 'my brothers-in-law' (e-lł-s-c'éx̣-t : my - related - kinfolk - wife's brother - integral characteristic)

7. łł- 'fish'

lot łłt'ams 'he is not fishing' (lł-t'am-s : fish - catch - 3 person)

łłt'améxx 'he is fishing' (lł-t'a-méx-x : fish - catch - usitative - non-future)

łłt'améntn 'fishing rod' (lł-t'a-mén-tn : fish - catch - instrument - nominalizer)

łłt'apén 'he caught a fish' (lł-t'ap-én : fish - strike at - round object)

8. k'oł- 'partner'

esnk'ołcwéx 'my lodging partner' (e-sn-k'oł-cwéx : my - nominalizer - partner - camp)

esnk'ołk'ólm 'my work partner' (e-sn-k'oł-k'ól-m : my - nominalizer - partner - work - indefinite object)

k'ołk^{W}lléwt 'one who lives with me' (k'oł-k^{W}l-IP-éwt : partner - locate - incomplete process - side by side)

9. ke- 'person'

tkasasélm 'there are two people' (t-k-as-asél-m : article - person - iterative - two - indefinite object)

pokenáqs 'monogamous' (po-ke-náqs : spouse - person - one)

kemósms 'four people' (ke-mós-ms : people - iterative - four)

10. ko- 'small object'

tekoq$^{W'}$áy 'it is a little black one' (te-ko-q$^{W'}$áy : article - small object - black)

skok^{W}létk^{W} 'small winter spring' (s-ko-k^{W}l-ét-k^{W} : nominalizer - small object - warm - abundance - water)

skokósnt 'star' (s-ko-kós-n-t : nominalizer - small object - fire - locative - natural object)

kok^{W}eyóma 'small' (ko-k^{W}ey-óm-a : small object - little - body - little)

kok$^{W'}$éna 'remnant' (ko-k$^{W'}$én-a : small object - amount - little)

koq^{W}lq^{W}él 'bed bug' (ko-q^{W}l-q^{W}él : small object - iterative - red)

kok^{W}lléwat 'the little ones are sitting together' (ko-k^{W}l-l-éwt-aD: small object - sit - completed process - side by side - diminutive)

Suffixes

Okanagan suffixes fall into four morpheme classes, which generally speaking are larger in constituent morphemes than the prefix classes. There are more entries under Class 10 morphemes than under all the prefix classes combined.

In the area of affixation, certain concepts in Okanagan are expressed solely by prefixes: for instance, notions of direction and emphasis. Other notions are expressed exclusively by suffixes: for example tense, or ideas of effort and degree of subjective involvement. But in the main, there is a large degree of notional overlap between prefix and suffix. Nominalization and verbalization are morphemically expressed both before and after the stem. Markers signifying pronominality, aspect, and location are similarly distributed.

We consider the suffix system to be more complex than the prefixes for the following reasons.

1. Pronoun suffixes are greater in number than pronoun prefixes, and have more distributional restrictions.
2. Homophonous morphemes are more common among the suffixes.[58]
3. In addition to the morpheme class division there is also a non-coterminous stress class division whereby primary and secondary stress are located.

Such conditions render the making of clearcut and definitive statements more difficult.

MORPHEME CLASS 9. ADVERB

Class 9 morphemes have a variety of phonemic shapes: four have the form (C)CVC, five have VC(C), and ten have C(C). The nineteen morphemes are as follows.

1.	-ep	'subject passively involved'
2.	-est	'acting deliberately or consciously; causative'
3.	-elx	'requiring physical exertion'
4.	-ak	'suffering, enduring'
5.	-ot	'in position, condition'
6.	-m	'causative'
7.	-mex	'usitative: using an instrument'
8.	-moł	'habitual, often, frequent'
9.	-t	'moving along'
10.	-t	'capable of producing'
11.	-n	'attempted act'
12.	-non	'manage to, finally succeed in'
13.	-łt	'dative: to, to deprivation of, for, for benefit of'
14.	-l	'illative'
15.	-lwes	'repetitive: keep trying or doing'
16.	-s	'artificially, unnaturally'
17.	-x	'acting habitually or characteristically; habitual state'
18.	-xt	'for'
19.	-q	'describing a curve'

Like Class 5 verbalizers, Class 9 adverbs function as stem modifiers. But while Class 5 prefixes form verbs, Class 9 suffixes accompany nouns and verbs indiscriminately, for example:

-mex 'usitative'　　　　　　-x 'habitual'

Nouns: soméx 'spiritual power' (so-méx : spiritual power - usitative)

ˁac̓xncótn 'mirror' (ˁac̓-x-n-có-tn : look at - habitual - locative - self - nominalizer)

Verbs: q'eméx 'he wrote' (q'e-méx : mark - usitative)

kʷcˁac̓xncótx 'you are always admiring yourself in the mirror' (kʷ-c-ˁac̓-x-n-cót-x : thou - durative - look at - habitual - locative - self - non-future)

Morpheme Class 9 is not obligatorily represented in every utterance, but it is sometimes represented to a maximum of two morphemes.

naqʷ'mɬtn	'I stole it from him'	(-m and -ɬt)
sknmpqenx	'he went blind'	(-m and ep)
knyaˁl̓t	'I ran away'	(-l and -t)

In this respect, the Class is comparable to other morpheme classes, e.g. preposition-adverbs and nominals, Classes 6 and 7.

One Class 9 morpheme, -lwes 'repetitive' has a phonemic shape that is distinct from other Class 9 adverbs. The question arises whether it is a unit morpheme. For example, xllwes 'he is trying' could be analyzed as xl-l=wes : do - illative - repetitive, or as xl-lwes : do - repetitive. We choose the latter interpretation because of the co-occurrence of -lwes with other Class 9 morphemes.

t'oxtlwes	'it kept flying around'	(-t and -lwes)
knxʷstlwes	'I am walking around'	(-est and -lwes)

In these examples we say that two Class 9 morphemes are present. To state that three are present would require a modification of the maximum occurrence statement, allowing the presence of two Class 9

morphemes. The modification would permit a maximum of three adverb suffixes when *-l and *-wes were present, but only two adverbs when *-wes was absent. We avoid this 'exception' by considering -lwes a unit morpheme.

Contrasting pairs are present in the data where a Class 9 adverb is now present and now absent. To illustrate the nature of these morphemes we reproduce some of these pairs.

-ep 'subject passively involved'

sknmqen 'he is blind'	ˤacéwsn 'I tied him around the waist'
sknmpqen 'he went blind'	ˤacpéws 'he was tied around the waist'

We do not consider -ep to constitute passive voice. Rather, the morpheme indicates the subject's attitude or involvement in the particular act: what occurred was without the subject's volition, or was an act over which the subject had little control.[59]

There is another -ep morpheme meaning 'bottom'. It occurs in nk'mep 'end of the lake', kɬnk'mépast 'door', swrép 'stinger (on a wasp)'. This morpheme is distinguishable from -ep 'subject passively involved' on the following grounds.

1. -ep 'bottom' is a Class 10 locative suffix while -ep 'subject passively involved' is a Class 9 adverb.

2. -ep 'bottom' is a primary suffix and never carries minimal stress, while -ep 'subject passively involved' is a variable suffix and often carries minimal stress.[60]

-est 'act deliberately, consciously; causative' and -m 'causative' These two morphemes sometimes appear to have similar meanings.

knscsyostx 'I am drinking' (kn-sc-syo-st-x : I - continuative - drink - deliberately - non-future)

naq$^{w'}$młtn 'I stole it from him' (naq$^{w'}$-m-łt-n : steal - causative - dative - I)

They often occur together as mest in a single utterance.

lot kntack'scnmést 'I do not swear'

snmepméstx 'confession'

xtxetmstlx 'they are running everywhere'

In such cases of co-occurrence we consider these morphemes still to be two and independent, but perhaps together they have a 'reflexive' connotation.[61]

-mex 'usitative: using an instrument'

Usually the 'instrument' denoted in this morpheme is obvious.

knscq'eméxx 'I am writing'   sp'méxx 'he is going up to bat'

Sometimes body parts are included in the denotation 'instrument'.

knsck'rméxx 'I am swimming'   knksnkxméxax 'I am going to walk'

On other occasions the 'instrument' is less apparent.

knkst'at'apméxax 'I will be out hunting'

knc'kméx 'I am counting'

ksc'ałméxax 'it is going to get cold'

knscmayméxx 'I am telling the story'

In the following pairs we contrast -mex 'usitative' with the Class 10 nominal -men 'instrument'.

łłt'améxx 'he is gone fishing'	łłt'améntn 'fishing rod'
kntxmex 'I combed (my hair)'	stxmen 'comb'
knsckłalméx 'I am fencing'	kłalmén 'fence'
knscʕ̇ax^{w}méxx 'I am stretching wire'	ʕax^{w}mén 'barbed wire'

It appears from the data that -mex occurs most frequently in verb forms; but -men occurs commonly in nouns, as illustrated, and in verbs.

tx^{w}t'pmentm 'we attacked him'	kncaq'ménx 'I threw . . .'

In the first example, -men is used as a stem morpheme and not as a suffix.

-mół 'habitual: often, frequent'

snaq$^{w'}$x 'he steals'	pex̣m 'he hunted something'
nq$^{w'}$nq$^{w'}$mół 'he always steals'	pax̣pax̣mół 'he always hunts'

These examples illustrate the fact that whenever -mół 'habitual: often, frequent' occurs in an utterance, an iterative chameleon morpheme is also always present.[62]

-n 'attempted act'

sq$^{w'}$ełk 'crop'	sq$^{w'}$e^{ʔ}nłk 'experimental crop'

caq'mén xƛ'ot 'he threw a stone'

caq'caq'nmés 'he knocked him over' (caq'-caq'-n-mé-s : throw - throw - attempted act - instrument - he)

knkłx^{w}epm 'I spread something out' (kn-kł-x^{w}ep-m : I - on - spread - indefinite object)

knktx^{w}epnancót 'I covered myself up' (kn-k-t-x^{w}ep-n-an-cót : I - to - location - spread - attempted act - place - self)

-łt 'dative: to, to deprivation of, for, for benefit of'[63]

kakécn 'I found it'	kakécłtn 'I found it for him'
kocóntx^{w} 'you told me'	kocółtx^{w} 'you told it to me'

We find little difference in meaning between this morpheme, -łt and -xt 'dative, indirect object'.

x^{w}ecłtn 'I gave it to him'

x^{w}ecxtmn 'I gave it to him'

k'olxtn 'I made it for him'

-l 'illative'

ya^{ʕ}tékn 'he ran along the fence'

ya^{ʕ}lt 'he ran away' (ya^{ʕ}-l-t : run - illative - moving along)

-lwes 'repetitive: keep trying or doing'

t'oxt 'it flew'

t'oxtlwés 'it kept flying around' (t'ox-t-lwés : fly - moving along - repetitive)

The meaning difference between -lwes 'keep trying or doing' and -mol 'often, frequent, habitual', discussed above, is that the former usually denotes continuous action and the latter continual action.

-x 'acting habitually or characteristically, habitual state'

c'etx 'he slept nearby' (c-^{ʔ}et-x : nearby - sleep - habitual act)

cetx^{w} 'house' (cet-x^{w} : house - house)

-q 'describing a curve'

ascrpáqs 'you have a hooked nose' (a-s-cr-p-áqs : thou - customary - bend - body - nose)

crqmncot 'he jumped' (cr-q-mn-cot : bend - describing a curve - instrument - self)

Homophonous Morphemes

A number of Okanagan suffixes are composed of a single phoneme; others have allomorphs consisting of one or two phonemes. It is consequently inevitable that two or more morphemes will occasionally be represented by identical phonemic shapes, giving rise to problems of identification. Three such problems are presented. The solution frequently lies in the fact that similar sounding morphemes belong to different morpheme position classes.

I. The -m Problem

Some Interior Salish languages have a number of suffixes in which the phoneme m appears. They are found in Okanagan and have been noted in Coeur d'Alone and Kalispel where the following comments have been made about them.

> These suffixes remain one of the unsolved problems of the Coeur d'Alene language.[64]
>
> The suffixes. . .present difficulties due to their frequency and variation in meaning.[65]
>
> One of the most difficult suffixes to interpret.[66]

The Okanagan morphemes are illustrated in the following examples.

	Prefix	Stem	9	10	11	12[67]	
1.		naqʷ'	m lt			s lx	'they stole from someone'
2.	s	kn	m p	qen	x		'he was blinded'
3.		xt xet	m st			lx	'they are running all over'
4.	kn sc n	meƛ'	m	éls			'I want to paint'
5.	kn	ˁay		m t			'I am angry'

	(Prefix	Stem	9	10	11	12[67])	
6.		ay		m éws			'holy cross'
7.	ko	t'qʷ cén		m		s	'he called me'
8.	kn sc	k'ol		mn		m	'I am using it'
9.	kn	t'ap				ám	'I fired at something'
10.	kn	pex̣				m	'I hunted something'

The -m morphemes identified for Okanagan are the following. We use their base forms.[68]

-m 'causative', Morpheme Class 9, Adverb

-om 'body', Morpheme Class 10, Nominal

-men 'instrument', Morpheme Class 10, Nominal

-am 'indefinite object', Morpheme Class 12, Pronoun

When these four morphemes are realized with allomorphs as phonemically distinctive as the four just listed, there is no problem of identification. Each of the four, however, has an allomorph -m. The identificational difficulty arises when they appear in this form.

The problem of isolating -m morphemes in an Interior Language is difficult on the basis of form and meaning; we consequently use morpheme position as our criterion. Of the four morphemes in question, one belongs to morpheme Class 9, two to morpheme Class 10, and one to morpheme Class 12. The two morpheme Class 10 morphemes are usually distinguishable on the basis of their distinctive phonemic shape.

A. -m 'causative' is illustrated in the examples above, numbered 1, 2, 3, 4. This adverb is always minimally stressed. In examples 1, 2 and 3 it precedes another Class 9 adverb. None of the other

three morphemes under discussion has this distribution: they all follow Class 9 adverbs, when such morphemes are present. In the examples, -m 'causative' occurs in verbs. But in spelmcn 'watershed' it occurs in a noun.[69] In naq$^{w'}$młtms 'he stole something from him' -m 'causative' and -am 'indefinite object' co-occur, separated by the Class 9 adverb -łt 'dative'.

B. -om 'body' is illustrated in examples 5 and 6. This Class 10 morpheme has variants with primary and minimal stress. The examples show this morpheme with the latter variant lacking the vowel, which is more easily confused with other morphemes in this discussion. Examples of -om 'body' bearing primary stress are knxnómt 'I am hurt', spómt 'animal hair', and kok^{w}eyóma 'little one'. This morpheme occurs with noun forms and verb forms; and in k^{w}esc^{c}áymtm 'I am angry with you', -om 'body' and -am 'indefinite object' co-occur separated by the Class 10 morpheme -t 'physical condition'. The pronoun -am 'indefinite object' is a pronoun, and follows any Class 10 Nominal-Locative suffixes that may appear in an utterance.

C. -men 'instrument' is illustrated in examples 7 and 8. This morpheme has variants with primary and minimal stress, illustrated in the discussion of Class 10 morphemes below. It is distinguishable from -om 'body' on the basis of distinctive phonemic shape, but this distinction sometimes disappears in certain environments, e.g. when -men precedes -n or -s. In nexlmncn 'I hear you' -m is 'instrument' and -n is 'completive aspect'. This latter morpheme is not present in the continuative construction k^{w}escnéxlmnm 'I can hear you'. Instead we find the Class 12 'indefinite object' morpheme, -am,

realized as -m following -men, realized as -mn. The same two morphemes appear at the end of k^{W}escláx̣tmnm 'I am making friends with you'. Besides occurring in the illustrated verbs, -men 'instrument' is also found in numerous nouns, e.g. stxmen 'comb', snt'amén 'stone pestle', sp'men 'drumstick'.[70]

D. -am 'indefinite object'. This Class 12 morpheme is illustrated in examples 8, 9, and 10. It sometimes carries primary stress, and when it does, is easily distinguishable from -om 'body'. The unstressed variant of 'indefinite object' is distinguishable from -om 'body' since the former is a Class 12 pronoun and the other is a member of Class 10. Thus in ^{c}aymt 'he is angry' -m is the Class 10 morpheme 'body' followed by another Class 10 morpheme -t 'physical condition'. Being a Class 12 morpheme, -am 'indefinite object' does not appear before -t 'physical condition'.

The function of -am is, as noted on page 156 above, to indicate that verbal action is applied to an entity distinct from the subject. This function can be illustrated with p'- 'strike with long object', a morpheme that appears in the first example below with -ap 'body'.

knsp'ap 'I was hit with a stick'[71]

knsp'am 'I hit something with a stick'

In the first example, there is no subject-object dichotomy: the subject is characterized by the notion expressed in the verb. In the second example, the presence of -am indicates an entity distinct from the subject, and characterized by the notion expressed in the verb. This is a subject-verb-object situation.

ppoƛst 'he was beaten' (no object)

poƛstm 'he beat someone' (-am is the object)

Sometimes a speaker feels it is necessary to delineate more precisely the nature of the 'indefinite object' and does so syntactically.

knsp'am enkwáp 'I hit my horse with a stick'

On other occasions the nature of the utterance is explanatory to the point that a syntactic object is deemed unnecessary.

knnqaqaxnékstm 'I folded my arms' (literally: I hand-on-arm bent something)

In the sense just outlined, -am has a transitivizing function. Such a function becomes important when we consider Okanagan aspectual forms. On page 158 above it was noted that Okanagan has three aspects: continuative, customary, and completive. It was further noted that two suffixes mark customary and completive aspects with transitive verbs but that there is no corresponding continuative suffix with transitive verbs. Instead, the Class 5 continuative prefix functions both intransitively and transitively. The co-occurrence of -am 'indefinite object' and the continuative prefix, sc-, indicates a transitive construction. When the continuative prefix appears without -am, the verb is intransitive. This is illustrated with the stem k'r 'swim'.

knsck'ram 'I am swimming something' (e.g. a lake)

knsck'rmexx 'I am swimming'

The morpheme -am is still retained even when a pronoun object is present in the utterance.

k^{W}escƛ'aám 'I was looking for you' (k^{W}-e-sc-ƛ'a-ám : thee - I - continuative - seek - indefinite object)

This last example illustrates the typical morpheme sequence for transitive verbs formed with -am:[72] object (prefix) - subject prefix - verbalizer - stem - -am 'indefinite object'. Other morpheme classes, of course, can be represented within this frame, and subjects, when third person, are represented by a pronoun suffix following -am, illustrated under morpheme Class 12. Aspect suffixes, however, are never used within the above frame. These latter morphemes are used in a different frame with a different se of pronouns.[73] While the continuative morpheme appears exclusively in the first frame mentioned, and the completive suffix appears exclusively in the second mentioned frame, the Class 5 customary prefix, s-, can appear in either frame.

kʷesᶜáymtm 'I am angry with you' (-am construction)

sᶜacʼstmn 'I am looking at you'

Here s- 'customary' precedes the stems ᶜay 'throat region' and ᶜacʼ 'look at'.

II. The -t Problem

Okanagan has five homophonous -t morphemes. They are

1. -t 'moving along'. Class 9 adverb.
2. -t 'capable of producing'. Class 9 adverb.
3. -t 'temporary (human) physical condition'. Class 10 nominal.
4. -t 'inherent characteristic'. Class 10 nominal.
5. -t 'imperative thou'. Class 12 pronoun.

Two can be distinguished most readily on notional grounds; the remainder are distinguishable distributionally. They are illustrated below, where each occurs finally.

1. kn?ok^{W}t 'I crawled', stem: ?ok^{W} 'crawl'
2. q^{W}nq^{W}ant 'he aroused pity', stem: q^{W}an 'pity'
3. knq'elt 'I was sick', stem: q'el 'be sick'
4. slax̣t 'friend', stem: lax̣ 'friend'
5. poxnt 'blow it!', stem: pox 'blow'

a. In the first example -t 'moving along' is an adverb that is frequently found with verb forms expressing various modes of physical movement through space like crawling, running, fighting, flying and falling.[74] As a Class 9 morpheme it is occasionally followed by a second Class 9 morpheme.

koak^{W}télx 'we crawled' (-t + elx 'physical exertion')

t'oxtlwés 'it kept flying around' (-t + -lwes 'repetitive')

This distributional feature distinguishes it from the Class 10 and 12 morphemes listed above. They never precede a Class 9 adverb.

b. The morpheme -t 'capable of producing' is also a Class 9 adverb. It can be distinguished from the homophonous adverb by the fact that -t 'capable of producing' always co-occurs with the IT- 'iterative' stem morpheme.[75]

k^{W}xac'xác't 'you are strange' (k^{W}-xac'-xác'-t : thou - iterative - strange - capable of producing)

sktmtamt 'cloud' (s-k-tm-tam-t : nominalizer - place - iterative - cover - capable of producing)

As a Class 9 suffix -t precedes all Class 10 suffixes including the two discussed next.

c. The morpheme -t 'temporary (human) physical condition' is difficult to distinguish distributionally from the morpheme -t 'inherent characteristic'. Each is a member of morpheme Class 10. It appears from our limited data that a root morpheme that accompanies one of the pair never accompanies the other but the divisional basis is morphologically not apparent. At present the division can be made only in semantic terms. The 'temporay (human) physical condition' morpheme accompanies roots that denote some variable physical or psychological states like anger, sickness, hunger, life, injury.

knˤaymt	'I am angry'
knxnomt	'I am hurt'
knsoˀlt	'I am frozen'

d. The 'inherent characteristic' morpheme accompanies roots denoting a more lasting condition, physical or otherwise.

pent	'always'	west	'mountain'
nast	'it is heavy'	k'ast	'it is bad'
ɬaq't	'it is wide'	x̣ast	'it is good'

e. The morpheme -t 'imperative thou (transitive completive)' is pronoun suffix, and as such follows adverbs and nominal-locative suffixes, including those discussed above, when they appear. In the illustrations it occurs finally.

eɬnt	'eat it!'	k'ɬˀέyaqnt	'tie it (sack)!'
nek'nt	'cut it!'	ˤac̓ht	'look at it!'

These examples typify the distribution of 'imporative thou': it occurs after the locative morpheme -an. The aspect suffix, that usually appears with transitive completive and customary verb forms, is not

represented before this imperative pronoun. Instead, aspect is distinguished by means of the pronoun used: -t is a completive pronoun, and -tek^{W} a customary pronoun.

III. The -n Problem

Okanagan has five morphemes, having the phoneme n, which when actualized are frequently homophonous. The distributional characteristics of each can be used to identify them. The -n suffixes appear in the following examples.

1. spacnéɬx^{W} 'tent under construction'
2. knscmeƛ'ncót 'I am painting myself'
3. sp'ecn 'rope'
4. wekntm 'we saw him'
5. st'apstómn 'I shot at you'

In each of the above utterances the -n represents a different morpheme. They are glossed and classified as follows:

1. -n 'attempted act'. Class 9 adverb
2. -an 'locative'. Class 10 locative.
3. -n 'nominalizer'. Class 10 nominal.
4. -n 'completive aspect'. Class 11 verbalizer.
5. -n 'I'. Class 12 pronoun.

The second listed morpheme, -an 'locative', has -n as one of its allomorphs.

Further illustrations of each of these morphemes can be found under the appropriate morpheme class heading. Now we briefly contrast the characteristics of the five morphemes.

1. -n 'attempted act'

As a member of morpheme Class 9, this morpheme precedes any of the other morphemes in the present discussion. The 'attempted act' morpheme is not common in the data but does occur in spacnéłxʷ 'tent under construction': s-pac-n-eł-xʷ : nominalizer - fibrous material - attempted act - sheltered - house. There are no examples of this morpheme preceding either of the two Class 10 homophones but in ktxʷepnancót 'he covered himself up', it precedes -an 'place' a primary suffix which is in complementary distribution with -an 'locative', a variable suffix. The 'attempted act' morpheme always carries minimal stress.

2. -an 'locative'.[76] This morpheme has a variant lacking the vowel. When this latter allomorph appears, the morpheme is more easily confused with the other -n morphemes in this discussion.

The -an 'locative' is a variable suffix, that is, it sometimes carries primary stress, the governing conditions being set out more specifically under Morphophonemics. This feature distinguishes it from the other four homophonous morphemes listed above. In the pair of examples, ˤacánt 'tie it up!', ˤac̓nt 'look at it!' it appears first primarily stressed and then minimally stressed.

When primarily stressed, the 'locative' morpheme is sometimes difficult to distinguish from another and different morpheme, -an 'place', mentioned above. This latter morpheme is a member of the same morpheme class as -an 'locative'. However, the 'place' morpheme is morphophonemically classified as a primary morpheme, that is, it

always carries primary stress except in the environment of another and following primary morpheme, in which environment it carries secondary stress.

sq$^{w'}$ánłktn 'farm'; ktx^{w}epnancót 'he covered himself up'

In the first example -an 'place' carries primary stress before a variable suffix -łak 'plant'. The 'locative' morpheme never realizes a primarily stressed variant before another variable suffix, nor does it ever realize a secondarily stressed variant as does -an 'place' in the second example.

3. -n 'nominalizer'. Although a Class 10 morpheme like -an 'locative', this nominalizing morpheme is distinguishable from the locative since it never has a variant that carries primary stress. Otherwise stated, -n 'nominalizer' has a single variant shape that remains constant with Class A, B, and C root morphemes. In the Morphophonemics it is stated that morphemes like -an 'locative' are primarily stressed when accompanying Class B and C root morphemes, while morphemes like -n 'nominalizer' are minimally stressed in this environment.

Further, while -an 'locative' occurs equally with nouns and verbs, -n 'nominalizer' occurs only in utterances called nouns.

Noun: nanék'osn 'carpenter's saw'

Verb: knnek'x 'I am cutting . . .'

In these examples, the stem morpheme is nek' 'cut'. The nominalizer appears at the end of the noun.

4. -n 'completive'. This is a Class 11 verbalizer. While -n 'nominalizer' occurs only in nouns, -n 'completive' occurs only in verbs. It frequently accompanies Class 12 pronoun suffixes, while -n 'nominalizer' never does.

weknṭm 'we saw him', wek-n-tm : see - completive - we

The completive morpheme is distinct from the locative morpheme since the latter has a primarily stressed variant and sometimes precedes nominal-locative morpheme. The completive morpheme has no variant containing a vowel and follows all the Class 10 morphemes with which it co-occurs. The 'locative' morpheme never appears before -n 'completive'.

5. -n 'I'. Being a pronoun suffix, -n 'I' is a member of morpheme Class 12. Three of the homophones in this discussion are members of Classes 9 and 10 and sufficiently removed positionally to obviate confusion with the pronoun -n. The completive aspect marker -n is a member of an adjacent morpheme class, and more easily confused. However, since -n 'I' occurs only after another pronoun suffix, and -n 'completive' never appears in this environment, the two can be distinguished with reference to this second pronoun. In the examples, the stem morpheme wek 'see' is used.

i. wekl̲mn 'I saw you'

ii. wekntm 'we saw him'

iii. wekncn 'I saw thee'

In the first case, -n is the pronoun 'I', since it follows another pronoun -l̲m 'you plural, object'. Aspect morphemes never follow pronoun suffixes. In the second example, -n is the completive aspect

morpheme, since it immediately follows the verb stem. The pronoun -n 'I' never appears in such an environment. Both -n morphemes appear in the third example, where the aspect marker follows the verb stem; and the first person pronoun follows -c 'thee', each in its own distinctive environment. In the first example, -n 'completive aspect' is realized as zero after the verb stem, following application of the morphophonemic rule n --> ∅ /— l. The conditions for the application of this rule are set out under Morphophonemics.

Examples of Class 9 Morphemes

1. -ep 'subject passively involved'

^{c}amáp 'it (ice) melted' (^{c}am-áp : melt - subject passively involved)

kn^{c}aláp 'I lost my bet' (kn-^{c}al-áp : I - lose by gambling - subject passively involved)- leg)

kox^{W}pálq^{W} 'it (tree) caught fire' (k-ox^{W}-p-álq^{W} : place - flame - subject passively involved - log)

ktktpaxn 'he lost his arms in an accident' (kt-kt-p-axn : iterative - lose in accident - subject passively involved - arm)

sknmpqenx 'he went blind' (s-kn-m-p-qen-x : customary - damage - causative - subject passively involved - head - non-future)

2. -est 'act deliberately, consciously; causative'

koksx^{W}x^{W}éstax 'we are going for a stroll' (ko-ks-x^{W}-x^{W}-ést-ax : we - intentional - diminutive - move along - deliberately - future)

snekstéa 'skunk' (s-nek-st-éa : nominalizer - ordure - causative - outside)

knscsyostx 'I am drinking' (kn-sc-syo-st-x : I - continuative - drink -

act deliberately - non-future)

xtxetmstlx 'they are running everywhere' (xt-xet-m-st-lx : run - run - causative - deliberately - 3 person pluralizer)

lot' aksk'scnmést 'do not swear!' (a-ks-k's-cn-m-ést : thou - imperative - bad - mouth - causative - deliberately)

kocnkóst 'we are lost' (ko-c-n-kó-st : we - durative - in - lose - causative)

x^{W}estólawx 'he travelled around' (x^{W}e-st-ólawx : move along - deliberately - country)

k^{W}elstn 'sweathouse' (k^{W}el-st-n : heat - causative - nominalizer)

knmenst 'I rubbed myself' (kn-men-st : I - rub - causative)

3. -elx 'requiring physical exertion'

knt'kewlx 'I climbed up' (kn-t'-kew-lx : I - instrumental - climb - physical exertion)

knca^{ʕ}lxx 'I am batheing' (kn-ca^{ʕ}-lx-x : I - bathe - physical exertion - non-future)

sox^{W}q'éclx 'runner' (sox^{W}-q'éc-lx : one who - run - physical exertion)

noswéslxlx 'they are jumping around' (n-os-wés-lx-lx : on - iterative - high - physical exertion - 3 person pluralizer)

atxélxwe 'go to sleep!' (atx-élx-we : sleep - physical exertion - ye imperative)

knksłq'élxax 'I am going to lie down' (kn-ks-łq'-élx-ax : I - intentional - lie down - physical exertion - future)

sexlxx 'move!' (sex-lx-x : move - physical exertion - thou imperative)

knpapasélxx 'I am thinking' (kn-pa-pəs-élx-x : I - iterative - think - physical exertion - non-future)

knk'welx 'I am swimming' (kn-k'w-elx : I - swim - physical exertion)

4. -ak 'suffering, enduring'

knc'wak 'I am burnt' (kn-c'w-ak : I - burn - suffer)

knlk'ak 'I was emprisoned' (kn-lk'-ak : I - tie up - suffer)

c'okékst 'he burnt his hand' (c'o-k-ékst : burn - suffer - hand)

c'okntén 'I burned him' (c'o-k-n-tén : burn - suffer - completive - I)

nplkxosn 'I broke his neck' (n-pl-k-xos-n : in - break - suffer - neck - I)

knłwak 'I got soaked' (kn-łw-ak : I - soak - suffering)

5. -ot 'in position, condition'

snamótn 'chair' (sn-am-ót-n : nominalizer - sit - in position - nominalizer)

xλ'ot 'rock' (xλ'-ot : rock - position)

kostktakótx 'we are walking around' (ko-s-tk-tak-ót-x : we - customary - iterative - walk - condition - non-future)

tk^{w}ltalq^{w} 'he is sitting on a log' (t-k^{w}l-t-alq^{w} : location - locate - in position - log)

6. -m 'causative'

spelmcn 'watershed' (s-pel-m-cn : nominalizer - break - causative - edge)

t'kmsaxn 'shoulder' (t'k-m-s-axn : support - causative - body - arm)

sknmpqenx 'he went blind' (s-kn-m-p-qen-x : customary - harm - causative - subject passively involved - head - non-future)

naq$^{W'}$młtn 'I stole it from him' (naq$^{W'}$-m-łt-n : steal - causative - dative - I)

xtxetmstlx 'they are running everywhere' (xt-xet-m-st-lx : run - run - causative - deliberately - 3 person pluralizer)

tłmsten 'I straightened it out' (tł-m-s-ten : straight - causative - customary - I)

7. -mex 'usitative: using an instrument'

kntxmex 'I combed (my hair)' (kn-tx-mex : I - comb - usitative)

scq'eméxx 'he is writing' (sc-q'e-méx-x : continuative - mark - usitative - non-future)

k^{W}sp'mexx 'you made a hit (in baseball)' (k^{W}-s-p'-mex-x : thou - customary - strike with long object - usitative - non-future)

knkst'at'apméxax 'I will be out hunting' (kn-ks-t'a-t'ap-méx-ax : I - intentional - iterative - shoot at - usitative - future)

łłt'améxax tesáma 'the whiteman is going fishing' (łł-t'a-méx-ax : fish - catch - usitative - future)

ksc'ałméxax 'it (the weather) is going to get cold' (ks-c'ał-méx-ax : intentional - cold - usitative - future)

knscmayméxx 'I am telling the story' (kn-sc-may-méx-x : I - continuative - relate - usitative - non-future)

knksk'rméxax 'I am going to swim out' (kn-ks-k'r-méx-ax : I - intentional - swim - usitative - future)

caknksƛ'lméxax 'I am going to die' (ca-kn-ks-ƛ'l-méx-ax : personal concern - I - inevitable future - die - usitative - future)

8. -mół 'habitual, often, frequent'

p'op'omół 'habitual farter' (p'o-p'o-mół : iterative - fart - habitual)

wahwahmół ekkwáp 'the dog keeps barking' (wah-wah-mół : iterative - bark - frequent)

t'et'emół 'lazy' (t'e-t'e-mół : iterative - lie in position - habitual)

nq^{W}'nq^{W}'mół 'he always steals' (nq^{W}'-nq^{W}'-mół : iterative - steal - habitual)

pax̣pax̣mół 'he always hunts' (pax̣-pax̣-mół : iterative - hunt - habitual)

9. -t 'moving along'

koak^{W}télx 'we crawled' (ko-ak^{W}-t-élx : we - crawl - moving along - physical exertion)

t'oxtlwés 'it is flying around' (t'ox-t-lwés : fly - moving along - repetitive)

sox^{W}tyáqt 'fighter' (sox^{W}-tyáq-t : one who - fight - moving along)

koaksx^{W}éltm 'deliver us (from evil)' (ko-a-ks-x^{W}él-t-m : us - thou - imperative - move away - moving along - indefinite object)

knya^{ʕ}lt 'I ran away' (kn-ya^{ʕ}-l-t : I - run - illative - moving along)

knyax^{W}t 'I fell off' (kn-yax^{W}-t : I - fall - moving along)

10. -t 'capable of producing'

k^{W}q^{W}nq^{W}ant 'you aroused my pity' (k^{W}-q^{W}n-q^{W}an-t : thou - iterative - pity - producing)

paxpáxt 'he is smart' (pax-páx-t : iterative - think - producing)

xac'xác't 'it is strange' (xac'-xác'-t : iterative - arouse curiosity - producing)

q^{W}mq^{W}amt 'he is quiet' (IT - q^{W}am-t : iterative - be oblivious - producing)

kncrcarst 'I am tired' (kn-IT-car-s-t : I - iterative - be lazy - unnaturally - producing)

11. -n 'attempted act'

spacnéłx^{W} 'tent under construction' (s-pac-n-éł-x^{W} : nominalizer - fibre - attempt - shelter - house)

kc'ek'nántm 'we set them alight' (k-c'ek'-n-á-n-tm : specific location - fire - attempt - place - completive - we)

eksnkcnéknm 'I am catching them up' (e-ks-n-kc-n-ékn-m : I - intentional - to - come - attempt - back - indefinite object)

spcpcnécax̣n 'canvas shoes' (s-IT-pc-n-éca-x̣n : nominalizer - iterative - fibrous material - attempt - body covering - feet)

soenómtax 'adolescent boy' (s-D$^{?}$-we$^{?}$-n-óm-tx-aD : nominalizer - diminutive - mature person - attempted act - body - young person - diminutive)

sq^{W}'e$^{?}$nłk 'first trial planting' (s-q^{W}'e$^{?}$-n-łk : nominalizer - grow - attempt - plant)

knkstx^{W}epnancótax 'I am going to cover myself up' (kn-ks-t-x^{W}ep-n-an-cót-ax : I - intentional - location - spread - attempt - place - self - future)

12. -non 'manage to, finally succeed'

mek^{W}enóntm 'we shall manage to take him' (me-k^{W}e-nó-n-tm : anticipational - seize - manage to - completive - we)

qonóntm esq'élt 'we caught the disease' (qo-nó-n-tm : take - manage to - completive - we)

q'olnóntx^{W} 'you are learning it' (q'ol-nó-n-tx^{W} : learn - manage to - completive - thou)

eksmepnónm asélxcn 'I will learn your Indian tongue' (e-ks-mep-nón-m : I - intentional - know - manage to - indefinite object)

13. -łt 'dative: for benefit of, to deprivation of'

kocółtn 'she told it to us' (ko-có-ł-tm : us - say - dative - she)

kakécłtn 'I found it for him' (ka-kéc-łt-n : specific place - come - dative - I)

kołcółtx^{W} 'you told me again' (ko-ł-có-ł-tx^{W} : me - again - say - dative - thou)

kok^{W}éłclx 'they took (my wife) from me' (ko-k^{W}é-łt-s-lx : me - take - dative - 3 person - 3 person pluralizer)

naq$^{W'}$młtn 'I stole it from him' (naq$^{W'}$-m-łt-n : steal - cause - dative - I)

14. -l 'illative'

ha k^{W}nexl 'did you understand?' (k^{W}-nex-l : thou - hear - illative)

paqlqén 'eagle' (paq-l-qén : white - illative - head)

lot tanéxlmncn 'I did not hear you' (ta-néx-l-m-n-c-n : negative - hear - illative - instrument - completive - thee - I)

knya^{c}lt 'I ran away' (kn-ya^{c}-l-t : I - run- illative - moving along)

k'łnek'lsxn 'a cut along the forehead' (k'ł-nek'-l-sx-n : on - cut - illative - flat surface - nominalizer)

15. -lwes 'repetitive: keep trying or doing'

xllwes 'he is trying' (xl-lwes : do - keep trying)

st'aplwésms 'he kept shooting at something' (s-t'ap-lwés-m-s : customary - aim at - keep doing - indefinite object - he)

knct'qʷ'lwesx 'I was lying around (sick)' (kn-c-t'qʷ'-lwes-x : I - durative - lie - keep doing - non-future)

knxʷstlwes 'I am walking around' (kn-xʷ-st-lwes : I - move along - causative - keep doing)

t'oxtlwés eskkáka 'the bird is flying around' (t'ox-t-lwés : fly - moving along - keep doing)

16. -s 'artificially, unnaturally'

mamscótn 'playing card' (mam-s-cót-n : bore - artificially - self - nominalizer)

kʷelstn 'sweat house' (kʷel-s-tn : heat - artificially - nominalizer)

kncrcarst 'I am tired' (kn-cr-car-s-t : I - iterative - be lazy - unnaturally - capable of producing)

knxssxos 'I wrenched my neck' (kn-xs-s-xos : I - move - unnaturally - neck)

17. -x 'habitual or frequent act, state, or place'

etxx 'he slept' (et-x-x : sleep - habitual - non-future)

ˤac̓xncótn 'mirror' (ˤac̓-x-n-cót-n : look at - habitual - locative - self - nominalizer)

ˤac̓xólawx 'great grandfather' (ˤac̓-x-ólawx : look at - habitual - land)

koslkʷéllxx 'we are moving camp' (ko-s-l-kʷél-l-x-x : we - customary - location - locate - illative - habitual - non-future)

knsc'emxx 'I am moving out' (kn-sc-ˀem-x-x : I - continuative - relocate - frequent act - non-future)

18. -xt 'dative: to or for a person or thing'

k'olxtn 'I made it for him' (k'ol-xt-n : make - dative - I)

swet ekspéxtm 'whom was I supposed to be hunting for?' (e-ks-pé-xt-m : I - intentional - hunt - for a person - indefinite object)

ksk'olxtmslx 'they do that to people' (ks-k'ol-xt-m-s-lx : intentional - do - to a person - causative - 3 person - 3 person pluralizer)

x^wecxtmn 'I gave it to him' (x^wec-xt-m-n : give - indirect object - instrument - I)

19. -q 'describing a curve'

mamqcn 'swallow (bird)' (mam-q-cn : dive - describing a curve - food)

kosctrqméx 'we are dancing' (ko-sc-tr-q-méx : we - continuative - turn - describing a curve - usitative)

cprqews 'he is swaybacked' (c-pr-q-ews : durative - bend - describing a curve - middle)

ntrqpncot 'I ran' (n-tr-q-p-n-cot : on - turn - describing a curve - body - locative - self)

sttawnqénakst 'little finger' (s-t-tawn-q-éna-kst : nominalizer - little - small - describing a curve - small object - finger)

kncrqmncot 'I jumped' (kn-cr-q-m-n-cot : I - jump - describing a curve - instrument - locative - self)

MORPHEME CLASS 10. NOMINAL-LOCATIVE

Characteristic of Salishan Languages in general is a group of morphemes which are here called nominal-locatives. These suffixes have attracted the attention of linguists possibly because of the appearance of cognate sets across language boundaries, or because of an apparently greater survival rate than 'general vocabulary' items.[79]

Of the ninety-two morphemes recorded as nominal-locatives, fifty-three have the canonical form -V(C)(C)(C), eighteen have -CV(C)(C)(C), sixteen have -C(C)(C)(C), three have -(V)(C)V(V), and two have (CC)VCV(CC).[80] The total range of Ckanagan phonemes is not represented here. While the three vowels are present, the following consonant phonemes never appear: ƛ, ƛ', r, qʷ', and ˤ. The glottal stop phoneme appears only in stylish speech as described on page 66 above.

The ninety-two nominal-locative morphemes are listed under Examples at the end of this section, and again in the Appendix following Chapter Four.

Semantically, nominal-locative suffixes refer to human beings, e.g. 'person', 'tribesman'; to animals, e.g. 'game animal', 'small animal', 'fish'; to natural phonemena, e.g. 'water', 'weather', 'plant', 'log'; to spatial concepts, e.g. 'top', 'middle', 'bottom', 'edge', 'inside', 'round object', and to anatomical features, e.g. 'face', 'hand', 'nose', 'head', 'horse's mane', 'cow's udder'.[81] Of these semantic categories, the last is the largest.

The function of Class 10 suffixes is illustrated in the following examples, having the frame kn- 'I', and q'el 'be sick'.

1. knq'elt 'I am sick': -t 'physical condition'
2. kntq'elkst 'my hand hurts': -ks 'hand'
3. knnq'éles 'I have toothache': -es 'tooth'
4. knnq'léna 'I have earache': -éna 'ear'
5. kntq'elx̣n 'my foot hurts': -x̥n 'foot'
6. kneq'elqn 'my head aches': -qn 'head'[82]

The second example illustrates the fact that nominal-locative representation is not limited to one morpheme: sometimes as many as three occur in a single utterance. In the event of such clustering there occasionally appears a modification in the semantic reference of certain morphemes. For example, one of the two nominalizers -tn, and -n appears in cases where 'part of a whole' is indicated.

esk^{w}ƛ'ós 'my face' : esk^{w}ƛ'óstn 'my eye'

espsáqs 'my nose' : espsáqsn 'my nostril'

The suffixes -ós and -áqs respectively denote 'face' and 'nose'.

Nominal-locative suffixes are particularly common in enumeration, where they occur with numeral stems.

'one log' naqs emlq^{w}álq^{w}, or nqsálq^{w} (-álq^{w} 'log')

'one house' naqs cetx^{w}, or nqsełx^{w} (-x^{w} 'house')

'one finger' naqs sc^{ʕ}aékst, or nqsekst (-eks 'hand, finger')

The positional proximity of the nominal-locative suffix to the Class 8 stem gives rise to the speculation that presence of the former morphemes in an utterance should be considered cases or encorporation, and consequently regarded as stem morphemes. Factors that encourage

this consideration are the following.

1. Nominal-locative suffixes often occur more than one to an utterance, as do stem morphemes.

2. Nominal-locative suffixes sometimes definitely appear in the stem. For example, -ét 'abundant'

Suffix: knamcnétk^w 'I am sitting at the water's edge'

Stem: netk^{w}ép 'it has rotted'

-sq̣áxa 'horse'

Suffix: snkłc'asqáxatn 'horse'

Stem: esqáxa 'my horse'

On other occasions there appears to be a close similarity between stem and nominal-locative suffixes.

Stem: q^{w}el 'mouth': knq^{w}lq^{w}elt 'I spoke'

Suffix: -q^{w}l 'mouth': knx̣wałq^{w}lt 'my mouth is dry'

Stem: łak 'bush': słkłknwałnt 'poison ivy'

Suffix: -łak 'bush': sq^{w}e^{ʔ}nłk 'first trial planting'

In this last pair łak is first used as a stem morpheme, and is reduplicated. Suffixes do not reduplicate in this manner. Then it is used as a suffix where it follows the adverbial suffix -n 'attempted act'

3. Nominal-locative suffixes have variants that carry sometimes primary, sometimes secondary stress varying with enivronment, as do stem morphemes.

4. Nominal-locative suffixes are sometimes associated with chameleon

morphemes as are stem morphemes.

snk'lep : 'he is Coyote'

snk'lepp : 'he is trying to be like Coyote'

In the second example the 'completed process' morpheme, realized as -p, follows the suffix -ep 'bottom of something'

The hypothesis considered above is rejected for the following reasons.

1. Morphemes of other classes besides nominal-locatives occur more than one to an utterance, for example pronoun suffixes. These latter morphemes are the farthest removed suffixes from the stem.

2. The stem is an open morpheme class that theoretically includes all the other morphemes of the language. It is quite common to find affixes appearing in the stem. But further, it is frequently the case that exclusively stem morphemes that are semantically equitable to nominal-locative morphemes have a quite distinct phonological shape. Otherwise stated, the independent utterance frequently bears no phonemic similarity to the semantically corresponding suffix.

	independent utterance	suffix
'clothes'	sttmtem	-alqs
'hand'	kelx	-eks
'heart'	spoos	-els
'mouth'	splemen	-$q^{w}l$

On other occasions the suffix appears as part of the independent utterance.

	independent utterance	suffix
'abundance'	xoét	-et
'foot'	sc'ox̣án	-x̣an
'head'	c'ásyaqn	-aqn
'middle'	nq'aq'eéws	-ews[83]

When a given entity lacks a single morpheme to express it, a combination of morphemes, but not always the same ones, describe that entity. For example, 'hair (on human head)' is qp-qen-tn : grow - head - that which. But, 'I grabbed his hair from the back' : kł-t'm-p-qe-n : towards - seize - body - head - I; 'I grabbed his hair from the front : n-t'm-os-ós-n : on - seize - top - body - I.
Each time the notion 'hair' is expressed tautologically.

3. Morphemes realized sometimes with primary and sometimes with secondary stress, depending on environment, occur in three of the four suffix classes. Such variation is therefore typical of suffixes.

4. Stem chameleon morphemes could possibly be considered cases of nominal-locative suffixes encorporated into the stem, an open morpheme class.

5. Of the ninety-two nominal-locative suffixes, -sqaxa 'horse' alone appears in the data as a free morpheme. The other suffixes are always bound, even when used in the stem.

6. A class of suffixes, adverbs, intervenes between stem and nominal-locative suffixes. To call the latter morphemes encorporations would necessitate doing the same with Class 9 adverbs, a procedure that

would lead to the destruction of the concept of 'morpheme class'.[84]

We consequently reject the proposal that nominal-locative suffixes be treated as stem encorporations,[85] but do not reject the possibility of these suffixes being fossilized roots.

Homophonous Morphemes

Among the Class 10 suffixes there are eight homophonous pairs. Their homophony sometimes presents identificational difficulties, particularly when their meanings are similar. For instance -eɬ 'sheltered' can easily be confused with -eɬ 'inside surface' in utterances like snq^{W}aɬqnéɬx^{W} 'teepee smoke hole' and knksx̣wéɬcax 'I am going to dry meat'. While meaning sometimes aids in identification, the most reliable criterion is stress classification. Under Morphophonemics suffixes are classified into three categories, called primary, variable, and invariable, respectively. On this basis the members of each pair can be identified.

	Primary	Variable
1.	-enk 'belly'	-enk 'source of power, strength'
2.	-ews 'surrounded: middle, together'	-ews 'top, high, place'
3.	-eɬ 'sheltered'	-eɬ 'inside surface'
4.	-ap 'bottom of something'	-ap 'body, mass'
5.	-an 'place'	-an 'locative'
6.	-alq^{W} 'log'	-alq^{W} 'legs'
7.	-aqs 'long member of group or set'	-aqs 'nose'
8.	-os 'face, eye, fire'	-os 'body'

A primary suffix carries primary stress, when no other member of this category follows it in a given utterance. When another member of this category follows it in an utterance, it then carries secondary stress.

A variable suffix carries primary stress when occurring with a recessive stem (called Class B or Class C). It loses that primary stress and its vowel when occurring with a dominant stem (called Class A), and/or when occurring with a primary suffix, and/or when followed by another variable suffix.

Thus members of homophonous pairs can be distinguished on the basis of stress distribution in the utterance. Their allomorphs have or lack primary stress in quite different environments. Stress distribution is dealt with more fully under Morphophonemics.

Illustrations

a. In km-k-t-x^{W}ep-n-an-cót 'I covered myself up', -an is the primary suffix 'place'. It bears secondary stress since it is followed by -cót 'self', another primary suffix. It is not the variable suffix -an 'locative' because in this enivroment (before a primary suffix), 'locative' would appear as -n.

b. In k-c'ek-n-á-n-tm 'we set fire to them', -á is the primary suffix -an 'place', realized as -á before the -n 'completive' morpheme. It is not the variable suffix -an 'locative' because later in the utterance we find -tm, an unstressed variant of the morpheme -tem 'we', which is a variable suffix. Before such a variable suffix, -an 'locative' would lose its primary stress.

c. The morpheme -os 'body' appears with k^Wel 'cream colour' in the term 'albino horse'. Since k^Wel is a dominant stem, the utterance is k^Wl-k^Wel-s 'albino horse', where -os 'body' is realized without a vowel and without primary stress. In this environment, the primary suffix -os 'face' would carry the primary stress and the stem would be minimally stressed, which in 'albino horse' does not happen. Thus there is little difficulty in identifying the variable suffix in this environment.

The same applies to the other pairs of homophonous morphemes listed above. Because stress patterns vary with primary and variable suffixes, the problem of morpheme identification among homophonous suffixes is minimized.

Chameleon Morphemes

In the discussion of Class 8 stem morphemes seven chameleon morphemes were presented, the phonemic constitution of which varied partially or completely with their environment. While the consonants in most morphemes vary, for the most part, with null, the consonants in chameleon morphemes characteristically evince a much wider range of variation. They resemble one or more of the consonants in the associated morpheme.

Five of the stem chameleon morphemes are located with reference to the initial phoneme of the root morpheme, and two of them with reference to the final phoneme of the root morpheme. The three nominal-locative chameleon suffixes are located in the utterance by reference to the final consonant of a preceding Class 10 suffix.

The three chameleon morpheme suffixes are -aD 'diminutive', -IP 'incomplete process' and -CP 'completed process'. The last two of these morphemes function the same way as the two comparable process morphemes described under Stem Morphemes above, the difference in the present case being that the associated morphemes are now members of Morpheme Class 10, rather than Morpheme Class 8.[86]

Illustrations of Chameleon Suffixes

a. Using the stem morpheme t'aq' 'short', which has the allomorph tq', and the Class 10 suffix -ops 'tail' as a frame, we derive the following terms.

1. tq'ops 'short tail'
2. ttq'ops 'little short tail'
3. ttq'opas 'tiny short tail'

The first example is composed of the frame alone. The second example has an added initial D- 'diminutive' stem morpheme. In the last example, the -aD 'diminutive' suffix is present: -ops + aD --> -opas 'tiny tail'. The presence of this diminutive suffix is always signaled by the presence of an a, located before the last or only consonant of the associated morpheme. In the following example the root morpheme D- 'diminutive' co-occurs with the suffix -aD 'diminutive'.

D + t'aq' + t + aD --> t't'áq'at 'short'

b. Using the frame x̣as 'good' and -t 'integral characteristic', we derive the following terms.

1. x̣ast 'a good one, e.g. dog'
2. x̣x̣ast 'a good little one'
3. x̣ax̣ásat 'a good very little one'

The first example is composed of the two presented morphemes. The second example has the prefixed D- 'diminutive' morpheme. The third example has the prefixed DV- 'diminutive' morpheme and the -aD 'diminutive' suffix.

The three chameleon morphemes are illustrated with pairs lacking and including the morpheme in question.

1. -aD 'diminutive'

a. steewtx 'sibling'. Suffix: -tx 'young person'.

b. sttewtax 'younger brother'. -tx + aD 'diminutive'.

a. skeelp 'widower grandson'. Suffix: -elp 'bereaved person'.

b. sk'eélap 'widow granddaughter'. -elp + aD 'diminutive'.

a. kok^{W}léwt 'we are sitting together'. Suffix: -ewt 'side by side'.

b. kok^{W}léwat 'the little ones are sitting together'. -ewt + aD 'diminutive'

2. -IP 'incomplete process'

a. k'amtenán 'I sat on him'. Suffix: -an 'place'.

b. k'amtenaán 'I am sitting on him'. -an + IP 'incomplete process'

a. knx̣włc'am 'I dried meat'. Suffix: -c'a 'game animal'

b. knx̣włc'aám 'I am drying meat'. -c'a + IP 'incomplete process'

3. -CP 'completed process'

a. snk'lep 'he is Coyote'. Suffix: -ep 'bottom'

b. snk'lepp 'he is trying to be Coyote'. -ep + CP 'completed process'

a. knx^{W}rap 'I am trembling'. Suffix: -ap 'body'

b. knx^{W}rrapp 'I am anxious'. -ap + CP 'completed process'.

Examples of Class 10 Morphemes

1. -ea 'outside'

snekstéa 'skunk' (s-nek-st-éa : nominalizer - excrement - cause - outside)

swéa 'sunflower shoots' (sw-éa : stringlike object - outside)

wrmotéa 'campfire' (wr-mot-éa : fire - sit - outside)

waxótea 'teepee' (wa-xót-ea : camp - down - outside)

kosck'néax 'we are listening' (ko-sc-k'n-éa-x : we - continuative - listen - outside - non-future)

2. -ep 'bottom of something, opening at bottom, doorway, mouth'

mayépnt 'tell on him!' (may-ép-n-t : tell - mouth - locative - thou imperative)

sax^{W}ép 'root' (sax^{W}-ép : move down - bottom)

kłopépast 'beard around mouth' (kł-op-ép-ast : covering - hair - mouth - surface of round object)

kłnk'mep 'door' (kł-n-k'm-ep : covering - on - body - doorway)

kłk'mépast 'chin' (kł-k'm-ép-ast : on - body - bottom - surface of round object)

kłnxnepnt 'close it (door)!' (kł-n-xn-ep-n-t : covering - on - fall - doorway - locative - thou imperative)

3. -em 'body'

escłkémm 'I am sewing' (e-sc-łk-ém-m : I - continuative - sew - body - indefinite object)

eksck^{W}ném 'I am going to get it' (e-ks-c-k^{W}n-ém : I - intentional - near - take - body)

pnemk 'liver' (pn-em-k : liver - body - somatic)

splemcn 'mouth' (s-pl-em-cn : nominalizer - enter - body - mouth)

sqaém 'breast' (s-qa-ém : nominalizer - suck - body)

4. -emn 'one who indulges in . . .'

atxémn 'sleepy-head' (at-x-émn : sleep - habitual act - indulge)

ałnémn 'over-eater' (ałn-émn : eat - indulge)

pax̣mémn 'ardent hunter' (pax̣-m-émn : hunt - indefinite object - indulge)

łłt'amémn 'ardent fisherman' (łł-t'am-émn : fish - catch - indulge)

qaqclxémn 'pig' (qa-qc-lx-émn : diminutive - run - requiring physical exertion - indulge)

5. -et 'abundant'

escmemayxétm 'I am telling him things' (e-sc-IT-may-x-ét-m : I - continuative - iterative - tell - habitual - abundant - indefinite object)

ƛ'letk^{w} 'he drowned' (ƛ'l-et-k^{w} : die - abundant - water)

cnmˤaétk^{w} 'object lying in water' (cn-mˤa-ét-k^{w} : nominalizer - object lies - abundant - water)

knamcnétk^{w} 'I am sitting at the water's edge' (kn-am-cn-ét-k^{w} : I - sit - edge - abundant - water)

xoét 'much, many' (xo-ét : much - abundant)

6. -en 'round object'

łłt'apén 'he caught a fish' (łł-t'ap-én : fish - hit with weapon - round object)

sc'wen 'spring salmon' (s-c'w-en : nominalizer - burn - round object)

slalaosqénkst 'wedding ring' (s-la-la$^{?}$-os-q-én-ks-t : nominalizer - iterative - bend - place - describing a curve - round object - finger - lasting feature)

sqpq'apénax^{W} 'sand' (s-IT-q'ap-én-ax^{W} : nominalizer - iterative - sand - round object - ground level)

k'amtenaán 'I am sitting on him' (k'-am-t-en-an-IṔ-n : movement at - sit - in position - round object - place - incomplete process - I)

x^{W}x^{W}ména 'rainbow trout' (D-x^{W}m-én-a : diminutive - red - round object - little)

7. -eńa 'small object, ear'

ant'éna 'your ear' (an-t'-éna : thy - be in position - ear)

tawnénax 'small amount' (tawn-éna-x : little - small object - body)

sppléna 'rabbit' (s-D-pl-éna : nominalizer - diminutive - grow - ear)

sttawnqénakst 'little finger' (s-D-tawn-q-éna-ks-t : nominalizer - diminutive - little - describing a curve - small object - finger - lasting feature)

sn^{ʕ}ac̓éna 'earring' (sn-^{ʕ}ac̓-éna : nominalizer - look at - ear)

sx̣wéna 'cactus' (s-x̣w-éna : nominalizer - dry - ear)

knentqtqéna 'I am deaf' (kn-c-n-IT-tq-éna : I - durative - on - iterative - cover with hand - ear)

xaéna 'he agreed' (xa-éna : agree - ear)

8. -enk 'belly, bellylike'

cq'łx̣^{W}enk 'cave' (cq'-łx̣^{W}-enk : dig - hole - bellylike)

sq^{w}lenenk 'guts' (s-q^{w}l-en-enk : nominalizer - be red - edge - belly)

sk'menk 'belly' (s-k'm-enk : nominalizer - body - belly)

knst'apénk 'I have a big belly' (kn-s-t'ap-énk : I - customary - project - belly)

q'ɬkenk 'bushes on mountainside' (q'-ɬk-enk : cover - bush - belly-like)

9. -enk '(source of) power, strength; weapon'

ennk'mnkékst 'palm of my hand' (en-n-k'm-nk-eks-t : my - in - body - power - hand - lasting feature)

enkɬk'mnkékst 'back of my hand' (en-kɬ-k'm-nk-éks-t : my - covering - body - power - hand - lasting feature)

enx̣aménk 'I want' (en-x̣am-énk : I - want - power)

ck^{w}enk 'bow' (ck^{w}-enk : pull - weapon)

soolménk 'gun' (s-ol-IP-m-énk : nominalizer - burn - incomplete process - body - weapon)

sq^{w}sq^{w}'asténk 'Coyote's generative power' (s-IT-q^{w}'as-t-énk : nominalizer - iterative - engender - integral characteristic - power)

10. -eɬ 'sheltered'

spacnéɬx^{w} 'tent under construction' (s-pac-n-éɬ-x^{w} : nominalizer - fibre - attempt - sheltered - house)

snq'lteɬx^{w}tn 'hospital' (sn-q'l-t-eɬ-x^{w}-tn : nominalizer - sick - physical condition - sheltered - house - nominalizer)

snq^{w}'aɬqnéɬx^{w} 'teepee smoke hole' (sn-q^{w}'aɬ-qn-éɬ-x^{w} : nominalizer - dark brown - head - sheltered - house)

xoéɬx^{w} 'many houses' (xo-éɬ-x^{w} : many - sheltered - house)

11. -eɬ 'inside surface: mouth, food'

esnexʷtáɬqʷlt 'the inside of my mouth' (e-s-nexʷt-aɬ-qʷl-t : my - nominalizer - inside - inside surface - mouth - physical condition)

téwɬc'a 'deer doe' (téw-ɬ-c'a : young - food - game animal)

lot kntackaˤéɬca 'I do not laugh at people' (kn-ta-c-kaˤ-éɬ-ca : I - negative - durative - mock - mouth - brethren)

steéɬc'a 'cariboo' (s-teé-ɬ-c'a : nominalizer - grass - food - game animal)

scméɬc'a 'ewe' (s-cm-éɬ-c'a : nominalizer - offspring - food - game animal)

spépkɬc'a 'weasel' (s-DV́-pk-ɬ-c'a : nominalizer - diminutive - dig - food - game animal)

snékɬc'a 'elk' (s-nék-ɬ-c'a : nominalizer - excrement(?) - food - game animal)

knksx̣wéɬcax 'I am going to dry meat' (kn-ks-x̣w-éɬ-c-ax : I - intentional - dry - food - game animal - future)

12. -eɬp 'tree, bush, rib'

ponɬp 'juniper' (pon-ɬp : juniper - tree)

maréɬp 'spruce' (mar-éɬp : administer - tree)

mlmlteɬp 'poplar tree' (IT-ml-t-eɬp : iterative - multiply - integral characteristic - tree)

mxeɬp 'cedar' (mx-eɬp : cedar - tree)

ɬx̣ʷɬx̣ʷeɬp 'wild cherry tree' (IT-ɬx̣ʷ-eɬp : iterative - cherry - tree)

cq'eɬp 'fir tree wood' (cq'-eɬp : fir wood - tree)

q^{w}lq^{w}lmnełp 'low sagebrush' (IT-q^{w}l-mn-ełp : iterative - hot - instrument - bush)

saatk^{w}łp 'old yellow pine' (sat-IP-k^{w}-łp : pine - incomplete process - water - tree)

snsnsatk^{w}łpqn 'prince's pine' (IT-sn-sat-k^{w}-łp : iterative - young - pine - water - tree)

ssatk^{w}łp 'bull pine' (D-sat-k^{w}-łp : diminutive - pine - water - tree)

ck'ełp 'rib' (ck'-ełp : rib - rib)

13. -el 'even surface'

enk'lk'mélsxn 'my forehead' (en-k'l-k'm-él-sxn : my - on - body - even surface - rounded surface)

entk'mélps 'back of my neck' (en-t-k'm-él-ps : my - location - body - even surface - back)

snxnelkstn 'shoulder blade' (sn-xn-el-ks-tn : nominalizer - down - even surface - arm - nominalizer)

nkałálqn 'Three Gables Hotel (name)' (n-kał-ál-qn : on - three - even surface - head)

k'lelx^{w} 'bark of tree' (k'l-el-x^{w} : protect - even surface - outer covering)

14. -elp 'bereaved person'

skeelp 'widower grandson' (s-ke-elp : nominalizer - grand relative - bereaved person)

sk'eélap 'widow granddaughter' (s-$D^{?}$-$ke^{?}$-elp-aD : nominalizer - diminutive - grand relative - bereaved person - diminutive)

15. -elt 'property, offspring'

stm^{ʕ}alt 'cow' (s-tm^{ʕ}-alt : nominalizer - cow - property)

stk'elt 'grandchild' (s-t-D$^{?}$-ke$^{?}$-elt : nominalizer - location - diminutive - grand relative - offspring)

sk^{W}k^{W}ƛ'elt 'yearling deer' (s-D-k^{W}ƛ'-elt : nominalizer - diminutive - spot - offspring)

sq^{W}q^{W}emlt 'child' (s-D-q^{W}em-lt : nominalizer - diminutive - child - offspring)

16. -els 'heart; feel like (doing)'

ank'séls 'mean person' (a-n-k's-éls : nominalizer - in - bad - heart)

nmałéls 'he calmed down' (n-mał-éls : in - calm - heart)

snkomelscótn 'pocket' (s-n-kom-els-có-tn : nominalizer - in - hold several - heart - self - nominalizer)

snq'aéls 'business affairs' (s-n-q'a-éls : nominalizer - in - write - heart)

konałnéls 'we felt like eating' (ko-n-ałn-éls : we - in - eat - heart)

kłk'mels 'breast' (kł-k'm-els : covering - body - heart)

k^{W}cnk'selscót 'you are trying to be mean' (k^{W}-c-n-k's-els-cót : thou - durative - in - bad - heart - self)

17. -eca '(removed) body covering'

nq^{W}aq^{W}ayáca 'first green salmon' (n-Ia-q^{W}ay-éca-aD : on - iterative - green - body covering - diminutive)

sopéca 'fur blanket' (s-op-éca : nominalizer - hair - body covering)

sppsnéca 'cloth, rag' (s-D-ps-n-éca : nominalizer - diminutive - lie flat - locative - body covering)

spcpcnécax̣n 'canvas shoes' (s-IT-pc-n-éca-x̣n : nominalizer - iterative - fibrous material - locative - body covering - foot)

kopéca 'human body hair' (k-op-éca : movement at - hair - body covering)

18. -es 'tooth'

knsnq'élesx 'I have a toothache' (kn-s-n-q'él-es-x : I - customary - in - sick - tooth - non-future)

konce^{ʕ}éss 'he hit me in the teeth' (ko-n-ce^{ʕ}-és-s : me - on - hit - tooth - he)

nslx^{w}ees 'big tooth' (n-sl-x^{w}e-es : in - long - abundant - tooth)

np'sƛ'ees 'big teeth' (n-p's-ƛ'e-es : in - several are big - tooth)

nx̣sx̣sesxn 'sweet choke cherries' (n-x̣s-x̣s-e-sxn : on - good - good - tooth - rounded surface)

19. -ek^{w} 'water'

netk^{w}ép 'it is rotted at the bottom' (n-et-k^{w}-ép : in - abundant - water - bottom)

ntxoétk^{w} 'large valley' (n-t-xo-ét-k^{w} : in - location - much - abundant - water)

nxosk^{w} 'beer' (n-xos-k^{w} : on - foam - water)

knamcnétk^{w} 'I am sitting on the bank' (kn-am-cn-ét-k^{w} : I - sit - edge - abundant - water)

t'ek$^{w'}$t 'lake' (t'-ek$^{w'}$-t : be in position - water - natural characteristic)

ƛ'letk^{w} 'he drowned' (ƛ'l-et-k^{w} : die - abundant - water)

cnm^{ʕ}aétk^{w} 'object lying in water' (c-n-m^{ʕ}a-ét-k^{w} : nominalizer - in - long object lies - abundant - water)

cngepk^{W} 'vertical object standing in water' (c-n-gep-k^{W} : nominalizer - in - long object stands - water)

sewłk^{W} 'water' (s-ewł-k^{W} : nominalizer - water - water)

sƛ'etk^{W} 'cool summer spring' (s-ƛ-ˀet-k^{W} : nominalizer - from - abundant - water)

sxonétk^{W} 'large falls' (s-xon-ét-k^{W} : nominalizer - fall - abundant - water)

sqtetk^{W} 'rain water' (s-qt-et-k^{W} : nominalizer - rain - abundant - water)

konsasaétk^{W} 'we fell into the water' (ko-n-IT-sa-ét-k^{W} : we - into - iterative - fall - abundant - water)

knnamtétk^{W} 'I am sitting in the water' (kn-n-am-t-ét-k^{W} : I - in - sit - in position - abundant - water)

xoétk^{W} 'lots of water' (xo-ét-k^{W} : much - abundant - water)

snsnsatk^{W}łpqn 'prince's pine' (IT-sn-sat-k^{W}-łp-qn : iterative - young - pine - water - tree - head)

20. -ex^{W} 'mouth'

knsnk^{W}nex^{W} 'I sang' (kn-s-n-k^{W}n-ex^{W} : I - customary - in - sing - mouth)

knksptéx^{W}ax 'I am going to spit' (kn-ks-pt-éx^{W}-ax : I - intentional - spit - mouth - future)

q^{W}téx^{W}a 'louse' (q^{W}t-éx^{W}-a : louse - mouth - little)

21. -ewt 'side by side'

claˤáwtm 'little valley' (c-laˤ-áwt-m : near - surfaces approach - side by side - body)

k^{W}llewtlx 'they sat together' (k^{W}l-CP-ewt-lx : be located - completed process - side by side - 3 person pluralizer)

kok^{W}lléwat 'the little ones sat together' (ko-k^{W}l-CP-éwt-aD : little - be located - completed process - side by side - diminutive)

22. -ews 'surrounded: middle, together'

ask'méws 'the small of your back' (a-s-k'm-éws : thy - nominalizer - body - middle)

ayméws 'holy cross' (ay-m-éws : tie - body - middle)

nk'msewstx̣n 'middle part of the leg' (n-k'm-s-ew-stx̣n : in - body - body - middle - leg)

tk'mews 'belly' (t-k'm-ews : location - body - middle)

sopáwsqn 'moustache' (derogative) (s-op-áws-qn : nominalizer - hair - middle - head)

sk'mawsqn 'mouth' (s-k'm-aws-qn : nominalizer - body - middle - head)

cprqews 'swayback' (c-pr-q-ews : near - bend - describing a curve - middle)

nq'aq'eéws 'in the middle' (n-Ia-q'e-éws : in - iterative - be in position - middle)

23. -ews 'top, high, place'

nanék'osn 'carpenter's saw' (na-nék'-os-n : iterative - cut - place - nominalizer)

sk'mosékst 'upper arm' (s-k'm-os-éks-t : nominalizer - body - top - arm - lasting feature)

k'mtews 'he is on horseback' (k'm-t-ews : body - in position - high)

ktk^{W}ewsslx 'they took him to the top' (k-t-k^{W}e-ws-s-lx : movement to - location - take - top - 3 person - 3 person pluralizer)

knctq$^{w'}$ews 'I am lying on top' (kn-c-tq$^{w'}$-ews : I - durative - lie - top)

kłx̣sews 'field' (kł-x̣s-ews : covering - good - place)

24. -ek 'somatic'

pnemk 'liver' (pn-em-k : liver - body - somatic)

ttaék 'middle age' (D-ta-ék : diminutive - endure - somatic)

skłkmelsk 'breast' (s-kł-k-mel-s-k : nominalizer - on - movement on - round body - body - somatic)

sqeltk 'person's whole back' (s-qel-t-k : nominalizer - person - natural characteristic - somatic)

kopáx^{w}ck 'chest hair' (k-op-áx^{w}c-k : movement at - hair - chest - somatic)

knk'ewłk 'I am old' (kn-k'ewł-k : I - old - somatic)

25. -ekn 'ridge, back'

eksnkcnéknm 'I am catching up with them' (e-ks-n-kc-n-ékn-m : I - intentional - on - come - attempted act - back - indefinite object)

tk'mekn 'mountain ridge' (t-k'm-ekn : location - body - ridge)

snk'mekn 'small of back' (sn-k'm-ekn : nominalizer - body - back)

ya^{ʕ}tékn 'he walked along the fence' (ya^{ʕ}-t-ékn : walk - moving along - ridge)

26. -eks 'finger, hand, arm'

opnkst 'ten' (opn-ks-t : ten - finger - lasting feature)

tkakałékst 'wild sarsaparilla' (t-Ta-kał-éks-t : location - iterative - three - finger - lasting feature)

laˁékstn 'thimble' (laˁ-éks-t-n : surfaces approach - finger - lasting feature - nominalizer)

celkst 'five' (cel-ks-t : five - finger - lasting feature)

stomkst 'thumb' (s-tom-ks-t : nominalizer - suck - finger - lasting feature)

sttawnqénakst 'little finger' (s-D-tawn-q-éna-ks-t : nominalizer - diminutive - little - describing a curve - small object - finger - lasting feature)

scˁaékst 'finger' (s-cˁa-éks-t : nominalizer - finger - finger - lasting feature)

skpplékast 'twig' (s-k-D-pl-éks-aD-t : nominalizer - movement at - diminutive - grow - finger - diminutive - lasting feature)

kncnqaqaxnékst 'I have my arms folded' (kn-c-n-qaq-axn-éks-t : I - durative - on - bend - arm - hand - lasting feature)

knkmlqʷekstn 'I clenched my fist' (kn-k-mlqʷ-eks-t : I - movement at - round - hand - lasting feature)

knc'okékst 'I burnt my hand' (kn-c'o-k-éks-t : I - burn - suffer - hand - lasting feature)

kmlqʷekst 'forearm' (k-mlqʷ-eks-t : movement at - round - arm - lasting feature)

kłk'mcnekst 'wrist' (kł-k'm-cn-eks-t : towards - body - edge - hand - lasting feature)

27. -a 'person'

tópa 'grandfather' (tóp-a : great relative - person)

sáma 'whiteman' (sám-a : whiteman - person)

scemála 'children' (s-D-cm-ál-a : nominalizer - diminutive - child - living creature - person)

k'ók'wa 'mother's father' (DV́-k'ew-a : diminutive - old - person)

q'améla 'glutton' (q'am-él-a : swallow - even surface - person)

28. -a 'little'

kokʷeyóma 'little thing' (ko-kʷey-óm-a : small object - little - body - little)

mˤamla 'worm' (mˤa-ml-a : long object lies - round body - little)

enc'áqʷ'ma 'my index finger' (en-c'áqʷ'-m-a : my - point - body - little)

ccwˀéxa 'small stream' (D-Dˀ-cwéx-a : diminutive - diminutive - flow - little)

kokʷ'éna 'remnant' (ko-kʷ'én-a : small object - amount - little)

xʷxʷména 'rainbow trout' (D-xʷm-én-a : diminutive - red - round object - little)

29. -ap 'weather, time'

sxʷapmx 'Shuswap Indian' (sxʷ-ap-m-x : cold - weather - body - person)

x̣aláp 'tomorrow' (x̣al-ap : daylight - time)

30. -ap 'bottom of something, foot'

smenáp 'bullfrog' (s-men-áp : nominalizer - slime - bottom)

kkwap 'dog' (D-kw-ap : diminutive - small - feet)

qʷaˤáp 'he slipped' (qʷaˤ-áp : slip - foot)

31. -ap 'body, mass'

oláp 'it has burnt up' (ol-áp : burn - body)

kntrqpncot 'I ran' (kn-tr-q-p-n-cot : I - turn - describing a curve - body - locative - self)

ƛ'ax̣ƛ'ax̣áp 'old man' (IT-ƛ'ax̣-áp : iterative - big - body)

łt'pmncotx 'jump!' (łt'-p-m-n-cot-x : jump - body - instrument - locative - self - thou imperative)

lalaáp 'pocket knife' (IT-la^{ʔ}-áp : iterative - fold - body)

sox^{w}áp 'flame' (s-ox^{w}-áp : nominalizer - flame - body)

st'gap 'it flows' (s-t'g-ap : customary - flow - body)

k^{w}ck'axáp 'you have grown bigger' (k^{w}-c-k'ax-áp : thou - durative - grow - body)

knsp'ap 'I was struck with a stick' (kn-s-p'-ap : I - customary - strike with long object - body)

knx^{w}c'pekst 'I have a broken finger' (kn-x^{w}c'-p-eks-t : I - break - body - finger - lasting feature)

32. -an 'place'

nk'stan 'Hell' (n-k's-t-an : in - bad - integral characteristic - place)

cpłan 'eyelash' (c-pł-an : near - cluster - place)

snq^{w}'anłktn 'farm' (sn-q^{w}'-an-łk-tn : nominalizer - grow - place - plants - nominalizer)

knktx^{w}epnancót 'I covered myself up' (kn-k-t-x^{w}ep-n-an-cót : I - movement to - location - spread - attempt - place - self)

kc'eknántm 'we set fire to them' (k-c'ek-n-a-n-tm : movement to - burn - attempt - place - completive - we)

kncttq^{w}'ancótax 'I am going to lie down' (kn-c-D-tq^{w}'-an-cót-ax : I - movement - diminutive - lie - place - self - future)

sklxʷtan 'west' (s-kl-xʷt-an : nominalizer - towards - down - place)

33. -an 'locative'

knˤayncót 'I laughed' (kn-ˤay-n-cót : I - throat region - locative - self)

k'olncótn 'Creator' (k'ol-n-có-tn : make - locative - self - nominalizer)

ˤac̓xncótn 'mirror' (ˤac̓-x-n-có-tn : look at - habitual - locative - self - nominalizer)

poxnt 'blow it!' (pox-n-t : blow - locative - thou imperative)

łwant 'stab it!' (łw-an-t : stab - locative - thou imperative)

łp'ánte 'mark it!' (łp'-án-te : mark - locative - ye imperative)

kokxntékʷ 'come with me!' (ko-kx-n-tékʷ : me - walk - locative - thou imperative)

łkʷntékʷe 'thread it!' (łkʷ-n-tékʷe : pierce - locative - ye imperative)

34. -ałq 'bush or tree fruit'

sp'eqáłq 'fruit' (s-p'eq-áłq : nominalizer - ripe - bush or tree fruit)

k'sałq 'bad crop' (k's-ałq : bad - bush or tree fruit)

x̣sałq 'good crop' (x̣s-ałq : good - bush or tree fruit)

35. -al 'living creature'

plal 'it (plant) grew' (pl-al : grow - living thing)

spplal 'teenager' (s-D-pl-al : nominalizer - diminutive - grow - living thing)

sccmála 'children' (s-D-cm-ál-a : nominalizer - diminutive - child - living creature - person)

sq^{W}q^{W}lal 'sunshine' (s-D-q^{W}l-al : nominalizer - diminutive - hot - living creature)

36. -alx^{W} 'outer covering, hide'

tecɬeálx^{W} 'strawberry pinto' (te-c-ɬe-álx^{W} : article - near - be mottled - hide)

tekɬpoqlx^{W} 'mouse coloured horse' (te-kɬ-poq-lx^{W} : article - on - mouse colour - hide)

tekɬpa^{ʕ}álx^{W} 'light buckskin coloured horse' (te-kɬ-pa^{ʕ}-álx^{W} : article - on - buckskin colour - hide)

tekɬk^{W}éllx^{W} 'chestnut bay horse' (te-kɬ-k^{W}él-lx^{W} : article - on - chestnut colour - hide)

cq'eelx^{W} 'pinto' (c-q'e^{ʔ}-IP-lx^{W} : near - be mottle - incomplete process - hide)

tekɬk'átlx^{W} 'brown horse' (te-kɬ-k'át-lx^{W} : article - on - brown - hide)

k^{W}lk^{W}lálax^{W} 'calf' (IT-k^{W}l-álx^{W}-aD : iterative - warm - hide - diminutive)

x^{W}aylx^{W} 'fox' (x^{W}ay-lx^{W} : abundant - outer covering)

37. -alq^{W} 'log'

aslálq^{W} 'two logs' (asl-álq^{W} : two - log)

emlq^{W}álq^{W} 'log' (e-mlq^{W}-álq^{W} : proclitic - round - log)

tk^{W}ltalq^{W} 'he is sitting on a log' (t-k^{W}l-t-alq^{W} : location - be located - in position - log)

nqsalq^{W} 'one log' (nqs-alq^{W} : one - log)

sqlqallq^{W} 'spruce bark' (s-IT-qal-lq^{W} : nominalizer - iterative - spruce - log)

kox^{W}pálq^{W} 'it (tree) caught fire' (k-ox^{W}-p-álq^{W} : movement to - flame - subject passively involved - log)

sx^{W}eálq^{W} 'woodworm' (s-x^{W}e-alq^{W} : nominalizer - move through - log)

38. -alq^{W} 'legs'

t'eqlq^{W} 'tall' (t'eq-lq^{W} : tall - legs)

ttq'alq^{W} 'short person' (D-tq'-alq^{W} : diminutive - short - legs)

slx^{W}aalq^{W} 'big built' (sl-x^{W}a-alq^{W} : long - abundant - legs)

kok^{W}eymálaq^{W} 'small person' (ko-k^{W}ey-m-álq^{W}-aD : small object - little - body - legs - diminutive)

39. -alqs 'clothes'

sep'eálqs 'buckskin jacket' (sep'e-álqs : hide - clothes)

stałlqs 'rain coat' (s-tał-lqs : nominalizer - waterproof - clothes)

q^{W}'aylqs 'priest' (q^{W}'ay-lqs : black - clothes)

kłq'aalqsmn 'I hid it under my jacket' (kł-q'a-alqs-m-n : on - cover - clothes - instrument - I)

40. -asq't 'day, sky, weather'

aslásq't 'Tuesday' (asl-ásq't : two - day)

stk'masq't 'sky, Heaven' (s-t-k'm-asq't : nominalizer - location - body - sky)

skałásq't 'Wednesday' (s-kał-ásq't : nominalizer - three - day)

skacéwsq't 'Sunday' (s-kac-éw-sq't : nominalizer - come - together - day)

ksweásq'tax 'it is going to stop raining, blowing' (ks-we-ásq't-ax : future - finish - weather - future)

41. -ax^{w} 'meat'

smolx^{w} 'fishnet' (s-mol-x^{w} : nominalizer - trap - meat)

koal$^{?}$élx^{w}t 'we are hungry' (ko-IT-$^{?}$él-x^{w}-t : we - iterative - hungry - meat - physical condition)

knnkac'x^{w}éls 'I am hungry for fish or meat (after eating berries)' (kn-n-kac'-x^{w}-éls : I - in - hungry - meat - feel like)

ˁaláx^{w} 'it (meat) is chilled' (ˁal-áx^{w} : be freezing - meat)

42. -ax^{w} 'ground level'

póƛax^{w} 'mole' (póƛ-ax^{w} : struggle - ground level)

łk'aláx^{w} 'when it gets dark' (ł-k'al-áx^{w} : subordinate - dark - ground level)

cx^{w}ax^{w} 'it drained away' (cx^{w}-ax^{w} : run off - ground level)

sqpq'apénax^{w} 'sand' (s-IT-q'ap-én-ax^{w} : nominalizer - iterative - sand - round object - ground level)

snk'alax^{w}cén 'twilight' (sn-k'al-ax^{w}-cén : nominalizer - dark - ground level - edge)

q'élax^{w} 'forest fire' (q'él-ax^{w} : make lie - ground level)

43. -ax^{w}c 'chest'

tk'max^{w}ck 'chest' (t-k'm-ax^{w}c-k : location - body - chest - somatic)

staxláx^{w}ck 'breast plate' (s-tax-l-áx^{w}c-k : nominalizer - cover - illative - chest - somatic)

kopáx^{w}ck 'chest hair' (k-op-áx^{w}c-k : movement at - hair - chest - somatic)

44. -axn 'arm, wing'

t'kmsaxn 'shoulder' (t'k-m-s-axn : support - causative - body - arm)

knososxnáxn 'I have long arms' (kn-IT-os-xn-áxn : I - iterative - long - horizontal - arm)

knenqaqaxnékst 'I have my arms folded' (kn-c-n-qaq-axn-eks-t : I - durative - on - bend - arm - hand - lasting feature)

x^{W}c'axn 'I broke its wing' (x^{W}c'-ax-n : break - wing - I)

^{c}acáxn 'Tied Arm (name)' (^{c}ac-áxn : tie - arm)

45. -aq^{W} 'plant, tree'

astq^{W} 'cedar' (as-t-q^{W} : cedar - in position - tree)

mcaq^{W} 'blackcap' (mc-aq^{W} : blackcap - plant)

c'aaq^{W} 'flower' (c'a-aq^{W} : flower - plant)

46. -aqn 'head, headlike'

etx^{W}áyaqslx 'they piled it up' (e-t-x^{W}-áy-aq-s-lx : proclitic - location - abundance - consolidate - head - 3 person - 3 person pluralizer)

acq^{W}áyaqn 'blue horse' (a-c-q^{W}áy-aqn : nominalizer - near - blue - head)

lk'áyaqn 'turban' (lk'-áy-aqn : bind - tie - head)

lqáyaqn 'I pulled his hair' (l-qáy-aq-n : location - pull - head -I)

c'ásyaqn 'head' (c'ás-y-aqn : head - round object - head)

satxyáqn 'sleepy head' (s-atx-y-áqn : nominalizer - sleep - round object - head)

q^{W}lq^{W}laqn 'red-headed woodpecker' (IT-q^{W}l-aqn : iterative - hot - head)

47. -aqs 'long member of a set'

tk'maqstx̣n 'leg calf' (t-k'm-aq-stx̣n : location - body - long member - leg)

knktktpaqstx̣n 'I lost the use of my lower limbs (in an accident)' (kn-IT-kt-p-aq-stx̣n : I - iterative - lose use of - body - long member - leg)

spsep'eáqstn 'buckskin trousers' (IT-sep'e-áqs-tn : iterative - hide - long member - nominalizer)

skcnmnaqsx̣n 'overalls' (s-kc-n-mn-aqs-x̣n : nominalizer - come - attempt - instrument - long member - leg)

48. -aqs 'nose, point'

mayqs 'tip of nose' (may-qs : end - nose)

nccaqs 'pig' (n-cc-aqs : on - round - nose)

nk'maqsc 'its point' (n-k'm-aqs-c : on - body - nose - 3 person)

spsaqs 'nose' (s-ps-aqs : nominalizer - lie on - nose)

snpsaqsn 'nostril' (s-n-ps-aqs-n : nominalizer - on - lie on - nose - nominalizer)

osxnáqs 'elephant' (os-xn-áqs : long - horizontal - nose)

49. -ops 'posterior region, tail'

ank'móps elpót 'the bottom of your cup' (an-k'm-ops : thy - body - posterior)

antk'mknóps 'your posterior' (an-t-k'm-kn-óps : thy - location - body - external extension - posterior region)

tkʷenpsn 'I caught him by the tail' (t-kʷen-ps-n : location - take - tail - I)

entk'melps 'back of my neck' (en-t-k'm-el-ps : my - location - body - even surface - posterior region)

crtops 'fisher bird' (cr-t-ops : fisher - in position - tail)

melqnóps 'golden eagle' (mel-qn-óps : round body - head - tail)

ttq'ópas 'short tail' (D-tq'-óps-aD : diminutive - short - tail - diminutive)

kososxnóps 'pheasant' (k-IT-os-xn-óps : movement at - iterative - long - horizontal - tail)

50. -om 'body'

eksc'eóm esk^{W}ƛ'ós 'I am going to wash my face' (e-ks-c'e-óm : I - intentional - wash - body)

enc'áq$^{W'}$ma 'my index finger' (en-c'áq$^{W'}$-m-a : my - point - body - little)

sox^{W}trqám 'dancer' (sox^W-tr-q-ám : one who - turn - describing a curve - body)

kok^{W}eyóma 'little one' (ko-k^{W}ey-óm-a : small object - little - body - little)

korósm 'rekindling wood' (k-or-ós-m : movement to - fire - fire - body)

knxnomt 'I am hurt' (kn-xn-om-t : I - hurt - body - physical condition)

cnla^{q}áwtm 'little valley' (cn-la^q-áwt-m : nominalizer - surfaces approach - together - body)

stałm 'boat' (s-tał-m : nominalizer - waterproof - body)

51. -ólawx 'land, earth, country' (Sometimes heard as -olax^W)

pkólawx 'seeding' (pk-ólawx : dig - land)

t'lólawx 'ploughed field' (t'l-ólawx : change - land)

tmhólawx 'land, country' (tmh-ólawx : property - land)

npssólawx 'it (tyre) is flat' (n-ps-CP-ólawx : on - lie on - completed process - land)

cngépolawx 'upright object in the ground' (cn-gép-olawx : nominalizer - long object stands - ground)

sopólawx 'grass' (s-op-ólawx : nominalizer - hairlike object - land)

snplólawx 'shoot leaving ground' (sn-pl-ólawx : nominalizer - grow - ground)

stq^{W}'ayx̣mólawx 'Blackfoot country' (s-t-q^{W}'ay-x̣m-ólawx : nominalizer - location - black - foot - land)

skepólawx 'twilight' (s-kep-ólawx : nominalizer - be dusk - land)

stq^{W}tq^{W}neólawx 'ghost' (s-IT-tq^{W}-ne-ólawx : nominalizer - iterative - cry - dead person - land)

x̣ax̣aólawx 'rattlesnake' (IT-xa-ólawx : iterative - mighty - land)

x̣sólawx 'flat land' (x̣s-ólawx : good - land)

ʕac̓xólawx 'grandfather' (ʕac'-x-ólawx : look at - habitual - land)

52. -os 'fire, eye, face'

esk^{W}ƛ'ós 'my face' (e-s-k^{W}ƛ'-ós : my - nominalizer - face - face)

copós 'beard on face' (c-op-ós : near - hair - face)

kolósm 'he lit it' (kol-ós-m : apply - fire - indefinite object)

kolóstn 'flintstone lighter' (k-ol-ós-tn : movement to - flame - fire - nominalizer)

korósm 'rekindling wood' (k-or-ós-m : movement to - fire - fire - body)

koksk'osorósax 'we are going night-luring' (ko-ks-k'os-or-ós-ax : we - intentional - go - fire - fire - future)

k'lk'mos 'cheeks' (k'l-k'm-os : towards - body - face)

53. -os 'body'

ank^{W}lk^{W}éls 'your albino horse' (an-IT-k^{W}él-s : thy - iterative - cream coloured - body)

ack^{W}ltapés 'cream coloured horse with red dorsal line' (a-c-k^{W}l-tap-és : nominalizer - durative - cream coloured - dark in appearance - body)

marémstn 'medicine' (mar-ém-s-tn : administer - body - body - nominalizer)

t'kmsaxn 'shoulder' (t'k-m-s-axn : support - cause - body - arm)

snˤacós 'trap' (sn-ˤac-ós : nominalizer - tie up - body)

54. -ost '(surface of) round object'

nayóstn 'soap stone carving' (nay-óst-n : soap stone - round object - nominalizer)

nk'mostxn 'upper lip' (n-k'm-ost-xn : on - body - surface of round object - horizontal)

kɬopépast 'beard around mouth' (kɬ-op-ép-ast : covering - hair - bottom - surface of round object)

kɬk'mépast 'chin' (kɬ-k'm-ép-ast : covering - body - bottom - round object)

55. -pasxn 'upper arm'

nk^{W}npasxntx^{W} 'you took his arm' (n-k^{W}n-pasx-n-tx^{W} : on - take - upper arm - completive - thou)

nk'mpasxn 'upper arm' (n-k'm-pasxn : on - body - upper arm)

nk'mppasxn 'side part of shoulder' (n-k'm-p-pasxn : on - body - body - upper arm)

56. -men 'instrument'

ermén 'I pushed him' (er-mé-n : push - instrument - I)

p'omén 'fart' (p'o-mén : fart - instrument)

meƛ'mn 'paint' (meƛ'-mn : paint - instrument)

mgmen 'fastener' (mg-men : fasten - instrument)

txoymn 'I went to see him' (t-xoy-m-n : location - go - instrument - I)

nek'mn 'knife' (nek'-mn : cut - instrument)

nexlmn 'I heard him' (nex-l-m-n : hear - illative - instrument - I)

ɬoˀmn 'spoon' (ɬoˀ-mn : poke at - instrument)

ɬɬt'améntn 'fishing rod' (ɬɬ-t'a-mén-tn : fish - catch - instrument - nominalizer)

nɬcqmen 'hay rack' (n-ɬ-cq-men : on - small place - be in position - instrument)

laˤmén 'button' (laˤ-mén : surfaces approach - instrument)

caq'mén 'I threw it' (caq'-mé-n : throw - instrument - I)

stq'et'mn 'fishing pole' (s-t-q'et'-mn : nominalizer - location - hook - instrument)

snt'amén 'stone pestle' (sn-t'a-mén : nominalizer - strike at - instrument)

sntqʷ'men 'coffin' (sn-tqʷ'-men : nominalizer - lie - instrument)

snɬqʷmen 'root house' (sn-ɬqʷ-men : nominalizer - lay away - instrument)

snlk'men 'jail' (sn-lk'-men : nominalizer - tie up - instrument)

snk'aˤmn 'church' (sn-k'aˤ-mn : nominalizer - mimick - instrument)

slmen 'I lost it' (sl-me-n : lose - instrument - I)

sxʷelmn 'Devil' (s-xʷel-mn : nominalizer - eject - instrument)

lgmen 'stinger' (lg-men : sting - instrument)

stxmen 'comb' (s-tx-men : nominalizer - comb - instrument)

k'rmen 'scissors' (k'r-men : cut - instrument)

knsck'olmnm 'I am using it' (kn-sc-k'ol-mn-m : I - continuative - use - instrument - indefinite object)

q'emén 'paper bearing writing' (q'e-mén : mark - instrument)

xlmen 'axe' (xl - men : chop - instrument)

ˤac̓mn 'field glasses' (ˤac̓-mn : look at - instrument)

ˤaytmn 'tooth' (ˤay-t-mn : oral region - in position - instrument)

57. -mex^{w} 'tribesman'

elméx^{w}m 'chief' (el-méx^{w}-m : strike[87] - tribesman - body)

nq^{w}'tmex^{w} 'Thompson Indian' (nq^{w}'-t-mex^{w} : steal - integral characteristic - tribesman)

staq'méx^{w} 'virgin' (s-taq'-méx^{w} : nominalizer - virgin - tribesman)

sqltmex^{w} 'husband' (s-ql-t-mex^{w} : nominalizer - person - integral characteristic - tribesman)

58. -t 'integral or natural characteristic, lasting feature'

t̓axt 'it (sugar) is sweet' (t̓ax-t : sweet - integral characteristic)

nast 'it (load) is heavy' (nas-t : heavy - integral characteristic)

łaq't 'it (river) is wide' (łaq'-t : wide - integral characteristic)

cax̣cax̣t 'it (day) is very hot' (IT-cax̣-t : iterative - hot - integral characteristic)

c'ałt 'it (day) is cold' (c'ał-t : cold - integral characteristic)

k'ast 'he is no good' (k'as-t : bad - integral characteristic)

texac't 'it (board) is hard' (te-xac'-t : article - hard - integral characteristic)

x̣ast 'she (child) is good' (x̣as-t : good - integral characteristic)

west 'mountain' (wes-t : high - integral characteristic)

slax̣t 'friend' (s-lax̣-t : nominalizer - friend - integral characteristic)

sx̣alx̣ált 'day' (s-IT-x̣al-t : nominalizer - iterative - daylight - integral characteristic)

spoƛnt 'fog' (s-poƛ-n-t : nominalizer - fog - locative - integral characteristic)

k^{W}k^{W}ret 'gold money' (D-k^{W}re-t : diminutive - yellow - integral characteristic)

knkłnk'stan 'I am destined for Hell' (kn-kł-n-k's-t-an : I - towards - in - bad - integral characteristic - place)

59. -t '(human) physical condition, often temporary'

sq'oct 'he is fat' (s-q'oc-t : customary - fat - physical condition)

knq'elt 'I am sick' (kn-q'el-t : I - sick - physical condition)

xnomt 'he is hurt' (xn-om-t : hurt - body - physical condition)

ʕaymtmncn 'I am angry with you' (ʕay-m-t-mn-c-n : oral region - causative - physical condition - instrument - thee - I)

60. -ten 'season, month'

pp'ecklłtán 'April' (D-Dʔ-pac-k-ł-ten-aD : diminutive - diminutive - leaf - somatic - inside surface - season - diminutive)

méktotn 'June' (mékto-tn : sunflower seed - season)

łx̣^{W}łx̣^{W}ten 'July' (łx̣^{W}-łx̣^{W}-ten : reduplication - wild cherry - season)

speƛ'mtn 'May' (s-peƛ'-m-tn : nominalizer - bitter root - body - season)

61. -tn 'nominalizer'

ap'nwéwxtn 'white flower with hooklike blooms' (ap'-n-wéwx-tn : hook - locative - together - nominalizer)

t'lólawxtn 'plough' (t'l-ólawx-tn : change - land - nominalizer)

nałnałnqélx^{W}tn 'monster' (n-ałn-ałn-qél-x^W-tn : on - eat - eat - person - person - nominalizer)

ƛ'ak^{W}pcéntn 'eating fork' (ƛ'ak^W-p-cén-tn : poke in - body - mouth - nominalizer)

łłt'améntn 'fishing rod' (łł-t'a-mén-tn : fish - catch - instrument - nominalizer)

la^{ʕ}ékstn 'thimble' (la^ʕ-éks-tn : surfaces approach - finger - nominalizer)

c'lólawxtn 'fencepost' (c'l-ólawx-tn : be upright - ground - nominalizer)

stk^{W}ƛ'ostn 'eye' (s-t-k^{W}ƛ'-os-tn : nominalizer - location - face - face - nominalizer)

snoréslp'tn 'woodstove' (sn-or-és-lp'-tn : place for - fire - fire - wood - nominalizer)

snatomopéltn 'garage' (sn-atomopél-tn : place for - automobile - nominalizer)

snlep'tn 'woodshed' (sn-lep'-tn : place for - wood - nominalizer)

snlokosótn 'pigsty' (sn-lokosó-tn : place for - pig - nominalizer)

sntmtmnetn 'cemetery' (sn-IT-tm-ne-tn : place for - iterative - cover - dead person - nominalizer)

snq'ltełx^{W}tn 'hospital' (sn-q'l-t-eł-x^W-tn : place for - sick - physical condition - sheltered - house - nominalizer)

kncentn 'poison' (kn-cen-tn : damage - mouth - nominalizer)

qpqentn 'hair' (qp-qen-tn : grow - head - nominalizer)

q'exsqáxatn 'brand' (q'ex-sqáxa-tn : burn - horse - nominalizer)

62. -tk 'time, permanence'

entk'éltk 'my property' (en-t-k'él-tk : my - location - protect - time)

pentk 'always' (pen-tk : time - permanence)

spentk 'year' (s-pen-tk : nominalizer - time - permanence)

seestk 'it is winter' (s-es-IP-tk : nominalizer - winter - incomplete process - time)

snˀestktn 'wintering place' (sn-ˀes-tk-tn : place for - winter - time - nominalizer)

63. -tx 'young person, sibling'

steewtx 'younger sibling' (s-tew-IP-tx : nominalizer - young - incomplete process - sibling)

sttéwtax 'younger brother' (s-D-téw-tx-aD : nominalizer - diminutive - young - sibling - diminutive)

sxeetx 'older sibling' (s-xet-IP-tx : nominalizer - be ahead - incomplete process - sibling)

swenómtx 'handsome teenage boy' (s-we-n-óm-tx : nominalizer - mature male - attempted act - body - young person)

64. -n 'nominalizer'

t'oxtn 'airplane' (t'ox-t-n : fly - moving along - nominalizer)

nanék'osn 'carpenter's saw' (Ia-nék'-os-n : iterative - cut - place - nominalizer)

sp'ecn 'rope' (s-p'ec-n : nominalizer - squeeze - nominalizer)

snpsaqsn 'nostril' (sn-ps-aqs-n : nominalizer - lying on - nose - nominalizer)

k'olncótn 'Creator' (k'ol-n-cót-n : make - locative - self - nominalizer)

k'ɬnek'lsxn 'cut on the forehead' (kɬ-nek'-l-sx-n : on - cut - illative - flat surface - nominalizer)

65. -ne 'dead person'

tmtmne 'corpse' (IT-tm-ne : iterative - cover - dead person)

sntmtmnetn 'cemetery' (sn-IT-tm-ne-tn : place for - iterative - cover - dead person - nominalizer)

stq^{W}tq^{W}neólawx 'ghost' (s-IT-tq^{W}-ne-ólawx : nominalizer - iterative - cry out - dead person - land)

66. -ɬak 'plant, bush'

sq^{W}'eɬk 'crop' (s-q^{W}'e-ɬk : nominalizer - grow - plant)

sq^{W}'e$^{?}$nɬk 'experimental crop' (s-q^{W}'e$^{?}$-n-ɬk : nominalizer - grow - attempted act - plant)

q'ɬak 'bush' (q'-ɬak : grow - plant)

q'ɬkenk 'bushes on mountain side' (q'-ɬk-enk : grow - plant - belly-like place)

67. -lps 'horse's mane'

skc'ewlps 'horse's mane' (s-k-c'ew-lps : nominalizer - movement at - back - mane)

kpeqlqs 'white maned horse' (k-peq-lqs : movement at - white - mane)

68. -lqs 'crescent-shaped place: bottom, bay'

nɬkaplqs 'big bush in bottom of hollow' (n-ɬk-ap-lqs : in - bush - bottom - crescent-shaped place)

nk'mlqsekst 'elbow' (n-k'm-lqs-eks-t : on - body - crescent-shaped place - arm - body feature)

snk'maplqs 'person's bottom' (sn-k'm-ap-lqs : nominalizer - body - bottom - crescent-shaped place)

scxoqlqs 'she is snoring, purring' (sc-xoq-lqs : continuative - snore, purr - bottom)

sk'k'atlqs 'horsefly' (s-D'-k'at-lqs : nominalizer - diminutive - brown - bottom)

69. -c'a 'game animal'

téwlc'a 'deer doe' (téw-ł-c'a : young - food - game animal)

steéłc'a 'cariboo' (s-teé-ł-c'a : nominalizer - grass - food - game animal)

spépkłc'a 'weasel' (s-DV́-pk-ł-c'a : nominalizer - diminutive - dig - food - game animal)

scméłc'a 'ewe' (s-cm-éł-c'a : nominalizer - offspring - food - game animal)

snékłc'a 'elk' (s-nék-ł-c'a : nominalizer - excrement - food - game animal)

sx̣wéłc'a 'dried meat' (s-x̣w-éł-c'a : nominalizer - dry - food - game animal)

70. -ca 'brother'

łsésnca 'younger brother' (ł-DV́-sn-ca : kin - diminutive - young - brother)

łqáqca 'older brother' (ł-qáq-ca : kin - person - brother)[88]

71. -cen 'edge, opening, mouth, language'

ecxʷacén 'he talks impulsively' (e-c-xʷa-cén : proclitic - durative - abundant - mouth)

tk'mcen 'lips' (t-k'm-cen : location - body - opening)

nmamacén 'chatterbox' (n-IT-ma-cén : in - iterative - talk - mouth)

nƛ'ax̣cén 'it (noise) is loud' (n-ƛ'ax̣-cén : in - big - mouth)

nxʷacén 'he was well-known' (n-xʷa-cén : in - abundant - mouth)

ƛ'akʷpcéntn 'eating fork' (ƛ'akʷ-p-cén-tn : poke in - body - mouth - nominalizer)

sopcén 'beard' (s-op-cén : nominalizer - hair - edge)

soxʷk'olcncótn 'cook' (soxʷ-k'ol-cn-cót-n : one who - make - mouth - self - nominalizer)

selxcn 'Okanagan language' (sel-x-cn : people - habitual - language)

splemcn 'mouth' (s-pl-em-cn : nominalizer - enter - body - opening)

sqʷlcnenk 'guts' (s-qʷl-cn-enk : nominalizer - red - edge - belly)

kntqʷcen 'I shouted' (kn-tqʷ-cen : I - cry out - mouth)

knamcnétkʷ 'I am sitting on the bank' (kn-am-cn-ét-kʷ : I - sit - edge - abundant - water)

kncentn 'poison' (kn-cen-tn : damage - mouth - nominalizer)

kɬopcén 'beard' (kɬ-op-cén : on - hair - edge)

yacén 'shore' (ya-cén : everything - edge)

72. -cen 'time, weather'

nx̣apcénx 'the weather is poor' (n-x̣ap-cén-x : in - wind, rain - weather - non-future)

snk'alaxʷcén 'twilight' (sn-k'al-axʷ-cén : nominalizer - dark - ground level - time)

snx̣alapcén 'sunrise' (sn-x̣al-ap-cén : nominalizer - daylight - time - time)

qepcn 'springtime' (qep-cn : grow - time)

73. -cot 'self'

plscot 'he killed himself' (pl-s-cot : kill - causative - self)

mamscótn 'playing card' (mam-s-có-tn : bore - unnaturally - self - nominalizer)

łt'pmncotx 'jump!' (łt'-p-mn-cot-x : jump - body - instrument - self - thou imperative)

snkomelscótn 'pocket' (s-n-kom-els-có-tn : nominalizer - in - put several - heart - self - nominalizer)

k^{w}cnk'selscót 'you are trying to be mean' (k^{w}-c-n-k's-els-cót : thou - durative - in - bad - heart - self)

k'olncótn 'Creator' (k'ol-n-có-tn : make - locative - self - nominalizer)

k'olcncótx 'cook!' (k'ol-cn-cót-x : make - mouth - self - thou imperative)

knpopłscót 'I beat my wife' (kn-po-pł-s-cót : I - spouse - beat - causative - self)

knkstq$^{w'}$ncótax 'I am going to lie down' (kn-ks-tq$^{w'}$-n-cót-ax : I - intentional - lie - locative - self - future)

ˤac̓xncótn 'mirror' (ˤac̓-x-n-có-tn : look at - habitual - locative - self - nominalizer)

74. -sax 'flat surface'

peqsxn 'silver money' (peq-sx-n : white - flat surface - nominalizer)

anx̣alsáxtn 'window' (a-n-x̣al-sáx-tn : nominalizer - in - daylight - flat surface - nominalizer)

kłk'melsxn 'forehead' (kł-k'm-el-sx-n : covering - body - even surface - flat surface - nominalizer)

k'łnek'lsxn 'cut on the forehead' (k'ł-nek'-l-sx-n : on - cut - illative - flat surface - nominalizer)

75. -semx^{W} 'cow's udder or teat'

nx̣wwsemx^{W} 'her udder went dry' (n-x̣w-CP-semx^{W} : in - dry - completed process - udder)

sk'msemx^{W} 'one teat' (s-k'm-semx^{W} : nominalizer - body - teat)

sk'mk'msemx^{W} 'cow's teats' (s-IT-k'm-semx^{W} : nominalizer - iterative - body - teat)

kestestespsémx^{W}s 'she really made bag' (ke-s-tes-tes-p-sémx^{W}-s : indeed - customary - fill - fill - subject passively involved - udder - 3 person)

76. -stx̣n 'leg'

entkmélpstx̣n 'my thigh' (en-t-k-mél-p-stx̣n : my - location - movement at - round body - body - leg)

tk'maqstx̣n 'lower leg' (t-k'm-aq-stx̣n : location - body - long member - leg)

nk'msewstx̣n 'middle part of leg' (n-k'm-s-ew-stx̣n : on - body - body - middle - leg)

kłp'łp'aqstx̣n 'RCMP constable' (k-IT-łp'-aq-stx̣n : movement on - iterative - mark - long member - leg)

77. -sqaxa 'horse'

nc'lxqesqáxatn 'saddle' (n-c'lx-q-e-sqáxa-tn : on - seize - describing a curve - body - horse - nominalizer)

nqpqesqáxatn 'saddle blanket' (n-qp-q-e-sqáxa-tn : on - grow - describing a curve - body - horse - nominalizer)

snkłc'asqáxa 'horse' (s-n-kł-c'a-sqáxa : nominalizer - on - at - creature - horse)

q'exsqáxatn 'brand' (q'ex-sqáxa-tn : burn - horse - nominalizer)

78. -x^W 'hide, hide-bearing, person'

tkłmelx^W 'wife' (t-kł-mel-x^W : location - on - round body - hide)

nqlx^{W}etk^W 'mermaid' (n-ql-x^W-et-k^W : in - person - person - abundant - water)

snaqsélx^W 'tribe' (s-naq-sél-x^W : nominalizer - one - people - person)

sqelx^W 'Indian' (s-qel-x^W : nominalizer - person - person)

sq'elx^W 'pair (of shoes)' (s-q'el-x^W : nominalizer - lie - hide)

79. -x^W 'house'

cetx^W 'house' (c-et-x^W : near others - sleep - house)

cnʔołx^W 'he entered' (c-n-ʔoł-x^W : hither - in - enter - house)

spacnéłx^W 'tent under erection' (s-pac-n-éł-x^W : nominalizer - fibrous material - attempted act - sheltered - house)

sxλ'otłx^W 'ground hog' (s-xλ'ot-ł-x^W : nominalizer - rock - inside surface - house)

knsmeλ'x^{W}x 'I am house painting' (kn-sc-meλ'-x^W-x : I - continuative - paint - house - non-future)

80. -x^{W}lx 'general fish'

qaqx^{W}lx 'fish' (qaq-x^{W}lx : bend - fish)

qex^{W}lx 'sucker fish' (qe-x^{W}lx : suck - fish)

81. -wea 'small animal'

q^{W}q^{W}'cwéa 'chipmunk' (D-D$^{?}$-q^{W}c-wéa : diminutive - diminutive - dirt - small animal)

t'nt'anwéa 'bat (zool.)' (IT-t'an-wéa : iterative - flit - small animal)

82. -wewx 'face to face, together' (Sometimes heard as -wex^{W})

ap'nwéwxtn 'white flower with hooked blooms' (ap'-n-wéwx-tn : hook - locative - together - nominalizer)

plstwewx 'they killed each other' (pl-st-wewx : kill - causative - together)

tk^{W}enksnwéwx 'they are shaking hands' (t-k^{W}en-ks-n-wéwx : location - take - hand - locative - together)

st'apnwéwx 'war' (s-t'ap-n-wéwx : nominalizer - shoot at - locative - face to face)

sox^{W}xtnwéwx 'wrestler' (sox^{W}-xt-n-wéwx : one who - down - locative - face to face)

kotk^{W}nk^{W}entwéwx 'we grabbed each other' (ko-t-IT-k^{W}en-t-wéwx : we - location - iterative - take - physical condition - face to face)

kosccaq'nwéwx texλ'ót 'we are throwing stones at each other' (ko-sc-caq'-n-wéwx : we - continuative - throw - locative - face to face)

knksc'awéwxsax 'I am going to wash my face' (kn-ks-c'a-wéwx-s-ax : I - intentional - wash - face to face - body - future)[89]

ˁacmnwéwxstn 'I tied them together' (ˁac-mn-wéwx-s-tn : tie - instrument - together - customary - I)

wktwewxlx 'they saw each other' (wk-t-wewx-lx : see - physical condition - face to face - 3 person pluralizer)

83. -x 'body, person'

tawnénax 'small amount' (tawn-éna-x : little - small object - body)

ƛ'akʷélx 'shaman' (ƛ'a-kʷél-x : seek - sit together - person)

stqʷ'ayx̣nx 'Blackfoot Indian' (s-t-qʷ'ay-x̣n-x : nominalizer - location - black - foot - person)

sxʷapmx 'Shuswap Indian' (sxʷ-ap-m-x : cold - weather - body - person)

słwelmtx 'person recently widowed' (s-ł-wel-m-t-x : nominalizer - kin - lose - body - physical condition - person)

kelx 'hand' (kel-x : seize - body)

84. -x̣an 'foot, leg'

esxétx̣n 'my trousers' (e-s-xét-x̣n : my - nominalizer - leg - leg)

stłtełx̣n 'rubber boots' (s-IT-teł-x̣n : nominalizer - iterative - waterproof - foot)

sc̓ox̣án 'foot' (s-c'o-x̣án : nominalizer - bone - foot)

skʷrx̣an 'crane bird' (s-kʷr-x̣an : nominalizer - yellow - foot)

kʷenx̣ntxʷ 'you grabbed his leg' (kʷen-x̣-n-txʷ : take - leg - completive - thou)

k'osx̣n 'dog' (k'os-x̣n : go - foot)

knˁalˁalx̣án 'my feet are freezing' (kn-IT-ˁal-x̣án : I - iterative - freeze - foot)

qaqénx̣n 'knee' (qaq-én-x̣n : bend - round object - leg)

q'ax̣án 'shoe(s)' (q'a-x̣án : cover - foot)

85. -xos 'face, neck'

menklxósntx^{W} 'you are to take him around the neck' (me-n-kl-xós-n-tx^{W} : obligation - on - seize - neck - completive - thou)

nplkxosn 'I broke his neck' (n-pl-k-xos-n : on - break - suffering - neck - I)

scpaqxós 'she is painting her face' (sc-paq-xós : continuative - white - face)

kntrpxos 'I twisted my neck' (kn-tr-p-xos : I - turn - body - neck)

knxssxos 'I wrenched my neck' (kn-xs-s-xos : I - twist - unnaturally - neck)

86. -xn 'footlike: long, horizontal'

nk'mostxn 'upper lip' (n-k'm-ost-xn : on - body - surface of round object - horizontal)

kososxnóps 'pheasant' (k-IT-os-xn-óps : movement at - iterative - long - horizontal - tail)

k'łk'mcenxn 'ankle' (k'l-k'm-cen-xn : at - body - edge - horizontal)

wesxn 'long' (wes-xn : long - horizontal)

knososxnáxn 'I have long arms' (kn-IT-os-xn-áxn : I - iterative - long - horizontal - arm)

87. -ya 'salmon'

ta^{ʕ}ánya 'red salmon' (ta-^{ʕ}án-ya : endure - mottled - salmon)

nałáxya 'sockeye salmon' (n-ał-áx-ya : on - again - turn body - salmon)

s^{ʕ}ánya 'male sockeye' (s-^{ʕ}án-ya : nominalizer - mottled - salmon)

xélya 'coho salmon' (xél-ya : male - salmon)

88. -q^{W}l 'mouth'

esnex^{W}táłq^{W}lt 'the inside of my mouth' (e-s-nex^{W}t-áł-q^{W}l-t : my - nominalizer - inside - inside surface - mouth - lasting feature)

keknx̣wáłq^{W}lt 'my mouth is dry' (ke-kn-x̣w-áł-q^{W}l-t : indeed - I - dry - inside surface - mouth - lasting feature)

89. -qen 'head'[90]

poalxqn 'buck' (po-alx-qn : go bump - requiring physical exertion - head)

melqnóps 'golden eagle' (mel-qn-óps : round body - head - tail)

toxxqén 'noon' (tox-CP-qén : straight - completed process - head)

ncaq'qéntn 'sledgehammer' (n-caq'-qén-tn : on - throw - head - nominalizer)

lk'qen 'Hindu' (lk'-qen : bind - head)

c'alqn 'seed' (c'al-qn : seed - head)

caawsqn 'I hit him in the mouth' (ca-aws-q-n : punch - middle - head - I)

sk'mawsqn 'mouth' (s-k'm-aws-qn : nominalizer - body - middle - head)

sopáwsqn 'moustache' (derogative) (s-op-áws-qn : nominalizer - hair - middle - head)

kc'lqen 'feather headdress' (k-c'l-qen : movement at - be upright - head)

qpqentn 'hair' (qp-qen-tn : grow - head - nominalizer)

q^{W}acqn 'hat' (q^{W}ac-qn : warm - head)

90. -aD 'diminutive'

ał tλ'áx̣at 'a little louder' (D-λ'áx̣-t-aD : diminutive - big - physical condition)

pp'eckłtán 'April' (D-D^ʔ-pac-k-ł-ten-áD : diminutive - diminutive - leaf - somatic - inside surface - season - diminutive)

ttáq'at 'he is short' (D-táq'-t-aD : diminutive - short - physical condition - diminutive)

ttq'ópas 'short tail' (D-tq'-óps-aD : diminutive - short - tail - diminutive)

nq^{W}aq^{W}ayáca 'first green salmon' (n-Ia-q^{W}ay-eca-áD : on - iterative - green - outer covering - diminutive)

soenómtax 'adolescent boy' (s-D^ʔ-we-n-óm-tx-aD : nominalizer - diminutive - mature person - attempted act - body - young person - diminutive)

sppqpaqáqas 'young salmon' (s-D-IT-paq-áqs-aD : nominalizer - diminutive - iterative - white - nose - diminutive)

snccmasqélax^W 'dwarf' (sn-D-cm-a-s-qél-x^W-aD : nominalizer - diminutive - child - person - nominalizer - person - person - diminutive)

sn^{ʔ}émat 'grandchild' (s-D^ʔ-ném-t-aD : nominalizer - diminutive - child - integral characteristic - diminutive)

ssák'as 'narrow' (D-sák'-os-aD : diminutive - narrow - body - diminutive)

sk'eélap 'widow granddaughter' (s-D^ʔ-ke^ʔ-élp-aD : nominalizer - diminutive - grand relative - bereaved person - diminutive)

skpplékast 'twig' (s-k-D-pl-éks-aD-t : nominalizer - movement at - diminutive - grow - finger - diminutive - natural feature)

scłétak^W 'spring of cold water' (s-cł-ét-ek^W-aD : nominalizer - cold - abundant - water - diminutive)

k^{W}lk^{W}lálax^{W} 'calf' (IT-k^{W}l-álx^{W}-aD : iterative - cream colour - outer covering - diminutive)

kok^{W}eymálaq^{W} 'small person' (ko-k^{W}ey-m-álq^{W}-aD : small object - little - body - legs - diminutive)

kok^{W}léwat 'the little ones sat there together' (ko-k^{W}l-éwt-aD : small object - locate - side by side - diminutive)

knkḻttamálax^{W} 'I have no clothes on' (kn-kḻ-D-tam-álx^{W}-aD : I - on - diminutive - cover - outer covering - diminutive)

kkágat 'thin' (D-kág-t-aD : diminutive - thin - physical condition - diminutive)

x̣ax̣ásat 'a good little one' (DV-x̣ás-t-aD : diminutive - good - integral characteristic - diminutive)

91. -IP 'incomplete process'

k'amtenaán 'I am sitting on him' (k-ˀam-t-en-an-IṔ-n : movement at - sit - in position - round object - place - incomplete process - I)

knx̣weḻc'aám 'I am drying meat' (kn-x̣w-eḻ-c'a-IṔ-m : I - dry - food - game animal - incomplete process - indefinite object)

92. -CP 'completed process'

snk'lepp 'he is trying to be like Coyote' (coyote = snk'lep) (s-n-k'l-ep-CP : nominalizer - on - dark colour - bottom - completed process)

knx^{W}rrapp 'I am anxious' (kn-x^{W}r-CP-ap-CP : I - be frayed - completed process - body - completed process)

MORPHEME CLASS 11. VERBALIZER

Okanagan has five Class 11 morphemes:

1. -ax 'future'
2. -n 'completive aspect'
3. -s 'customary aspect'
4. -welx 'become'
5. -x 'non-future'

Their canonical shape is (C)(V)C(C). As a group, they are comparable to Class 5 Verbalizers, which are prefixes. In this latter group, for instance, there are markers denoting aspect, i.e. sc- 'continuative aspect' and s- 'customary aspect'. The meaning and distribution of these aspect markers are discussed under Morpheme Class 5 (pages 158-60), where it can be seen that these morphemes may have some homogeneity in semantic terms, but have little in common distributionally. In particular it is noted that in certain transitive verbs, two customary morphemes appear: koskécstx^{W} 'you met me'. Here s- 'customary' and -s 'customary' co-occur. At other times, the first customary marker is absent: kokécstx^{W} 'you met me'. Such double aspectual occurrence is never found with verb forms carrying continuative or completive morphemes.

In her study of five Salishan languages Reichard writes:

> In all the languages . . . the continuative is a verbal noun introduced by the s- nominalizer.[91]

If we applied the statement to Okanagan, it would be necessary to divide sc- 'continuative aspect', heretofore considered as a unit morpheme, into s- 'nominalizer' plus c- 'continuative'. This approach could also be used with what was called the 'double aspectual occurrence' in the paragraph above, in describing certain transitive

customary verb forms. Instead of the s- prefix being called 'customary', it could be called 'nominalizer'. Such a procedure is not adopted in this description; and the proposition that Okanagan continuative forms be called verbal nouns is rejected for the following reasons.

1. To this point it has always been possible to consider the Class 3 s- 'nominalizer' and the Class 5 aspect morpheme to be mutually exclusive in any given utterance.
2. The s- 'nominalizer' never overtly accompanies the Class 5 s- 'customary' aspect prefix in intransitive verbs.
3. Even if the data were reinterpreted, the s- 'nominalizer' would never occur overtly with the completive suffix.
4. The occasional appearance of the s- prefix in transitive customary verbs is atypical of s- 'nominalizer' occurrence. There are no examples of nouns where the s- 'nominalizer' is only optionally present.
5. The s of sc- 'continuative' follows morpheme Class 4 adverbs, when they appear together in an utterance, while the s- 'nominalizer' precedes adverbs, as do all other Class 3 nominalizers.[92]

Two of the five Class 11 verbalizers, s- 'customary aspect' and -n 'completive aspect', appear in transitive verb forms. The remainder, -ax 'future', -welx 'become', and -x 'non-future' appear in intransitive verb forms. The two aspect morphemes are always followed by a Class 12 pronoun, while the other three morphemes are followed only and optionally by the Class 12 morpheme -lx '3 person pluralizer'. Morpheme Class 11 is never represented by more than one morpheme in

any single utterance.

The distribution of the two tense markers is restricted to intransitive verb forms. Semantically they enable a speaker to relate one event to another event in terms of time sequence, and do not necessarily use the present moment as the dividing point between future and non-future.[93] Frequently the future morpheme, -ax, co-occurs with the Class 5 morpheme ks- 'intentional', and the non-future -x morpheme co-occurs with sc- 'continuative aspect'.

knksxóyax	'I intend going'	knscxoyx	'I am going'
knks^{ʔ}éłnax	'I am going to eat'	knsc'ełnx	'I am eating'

The morpheme -welx 'become' can be compared semantically with the process morphemes, described under Morpheme Class 8. Within the frame x̣as 'good' and -t 'integral characteristic' the following comparisons can be made.

Frame alone: x̣ast 'it is good'

With -IP 'incomplete process': x̣aas 'it is getting good'

With -CP 'completed process': x̣asst 'it became good'

With -welx 'become': x̣stwelx 'it became good, it is getting better'

Examples of Class 11 Morphemes

1. -ax 'future'

sc'émxax 'he will be moving out' (sc-^{ʔ}ém-x-ax : continuative - move belongings - habitual - future)

t'ek̓nsxóyax 'I must go' (location - I - customary - go - future)

ha płcxóyax 'are you coming back?' (p-ł-c-xóy-ax : ye - back - hither - go - future)

łłt'améxax 'he is going to fish' (łł-t'a-méx-ax : fish - strike at - usitative - future)

knkstaq$^{W'}$ncótax 'I am going to lie down' (kn-ks-taq$^{W'}$-n-cót-ax : I - intentional - lay - locative - self - future)

ha pslax̣téwsax 'are you going to be partners?' (p-s-lax̣-t-ews-ax : ye - customary - friend - integral characteristic - together - future)

ał nkkalécnax 'talk quieter' (n-D-kalé-cn-ax : in - diminutive - quiet - mouth - future)

2. -n 'completive aspect'

t'apntén 'I shot it' (t'ap-n-tén : aim at - completive - I)

kok^{W}a^{ʔ}ntés 'it (dog) bit me' (ko-k^{W}a^{ʔ}-n-tés : me - bite - completive - 3 person)

wekntm 'we saw him' (wek-n-tm : see - completive - we)

3. -s 'customary aspect'

q'sápe kacwékstn 'I saw him here long ago' (ka-c-wék-s-tn : here - durative - see - customary - I)

s^{ʕ}ac'stx^{W} 'you watch him' (s-^{ʕ}ac'-s-tx^{W} : customary - look at - customary - thou)

sk'olstn 'I am working on it' (s-k'ol-s-tn : customary - work - customary - transitive - I)

4. -welx 'become'

nc'ałtk^{W}wélx 'the water got cold' (n-c'ał-t-k^{W}-wélx : in - cold -

natural characteristic - water - become)

snsantwélx 'it (horse) became gentle' (sn-san-t-wélx : iterative - tame - integral characteristic - become)

knƛ'ax̣x̣pwelx 'I am getting older' (kn-ƛ'ax̣-x̣-p-welx : I - big - completed process - body - become)

k'stwelx 'it became useless' (k's-t-welx : bad - characteristic - become)

x^{W}atk^{W}wélx eséwłk 'the (lake) water is rising' (x^{W}a-t-k^{W}-wélx : abundant - moving along - water - become)

5. -x 'non-future'

k'akén łsxoyx 'where is she going?' (ł-s-xoy-x : subordinate - customary - go - non-future)

k'akén kek^{W}ck'ólx 'where do you work?' (ke-k^{W}-c-k'ól-x : indeed - thou - durative - do - non-future)

knsxnomtx 'I got hurt' (kn-s-xn-om-t-x : I - customary - harm - body - physical condition - non-future)

knq'eltx 'I was sick' (kn-q'el-t-x : I - sick - physical condition - non-future)

ełxóyx 'he is going back' (e-ł-xóy-x : proclitic - back - go - non-future)

k^{W}ckenx 'what are you doing?' (k^{W}-c-ken-x : thou - durative - interrogative - non-future)

knsc'ełnx 'I was eating' (kn-sc-ˀełn-x : I - continuative - eat - non-future)

MORPHEME CLASS 12. PRONOUN

Twenty-three morphemes constitute this class, referring to all three persons, including an indefinite object. They express nominal possession, verbal subject and object, and frequently function in conjunction with Class 2 morphemes, which are also inflectional pronouns.

Class 12 Pronoun Morphemes

	Subject		Object	
First Person	-tem	'we'		
	-ten	'I'		
	-t	'we'		
	-tt	'we'		
	-n	'I'		
Second Person	-mp	'ye'	-tom	'2 person'
	-t	'thou imperative completive'	-łolm	'ye'
	-te	'ye imperative completive'	-ce	'thee'
	-tep	'ye'		
	$-tek^w$	'thou imperative customary'		
	$-tek^we$	'ye imperative customary'		
	$-tex^w$	'thou'		
	-we	'ye imperative'		
	-x	'thou imperative'		
Third Person	-tem	'3 person'	-tem	'3 person'
	-s	'3 person subject/possessive'		
	-s	'3 person subject, transitive'		
	-lx	'3 person pluralizer'		
Indefinite Object			-am	'3 person'

Canonical form of these pronouns is (C)(V)C(V)(m), where the following consonants never appear: the eight glottalized consonants, the labio-uvular, uvular, and faucal consonants, ƛ, ƛ', and r. All those morphemes with the interconsonantal vowel have a variant lacking

the vowel when primary stress falls elsewhere in an utterance.

-ten 'I': ˁàcntén 'I tied him up'; ˁách̓tn 'I watched him'.

The presence of morpheme Class 12 can be marked in an utterance by one, two or three morphemes. In the last case, the 3 person pluralizer -lx is always the third such morpheme, ending the utterance.

s-t'ap-s-tóm-s-lx 'they fire at you'

This last morpheme -lx is different from other Class 12 morphemes in two respects. Firstly it is the only morpheme that can be preceded by two other Class 12 morphemes (The others can be preceded by at most one). Secondly, it has reference to both subject pronouns and object pronouns. It was noted in footnote 37 above that this morpheme is used more frequently in the Head of the Lake dialect than in the Penticton dialect. There is a much stronger tendency in the latter dialect to restrict its reference to subject pronouns, but in both dialects it functions more as a pluralizer than as a pronoun, and is used only when the speaker wishes to stress plurality. However, in certain intransitive forms it is the only Class 12 morpheme overtly present: pex̣lx 'they hunted'.

Class 12 pronoun suffixes frequently function in concert with Class 2 pronoun prefixes, the verb forms being transitive. Morpheme Class 2 includes both subject and object pronouns as does Morpheme Class 12. However, no matter what combination of pronouns appears in any given utterance the sequence is always object pronoun preceding subject pronoun with the pluralizer -lx optionally terminating

the utterance. This is illustrated with the verb stem λ'aˀ 'seek'. The pronouns are underlined.

k^W-*e*-sc-λ'a-ám 'I am seeking you' (k^W- 'thee', e- 'I')

ko-sc-λ'a-ám-*s* 'he is seeking me' (ko- 'me', -s 'he')

ko-sc-λ'a-ám-*s*-*lx* 'they are seeking me' (-lx '3 person pluralizer')

λ'aˀ-n-*cé*-*n* 'I sought you' (-ce 'thee', -n 'I')

Other morphemes present in the illustration are -am 'indefinite object', sc- 'continuative aspect', and -n 'completive aspect'.

In transitive verb paradigms, different sets of subject and object pronouns are used. Pronouns appearing in continuative verb forms usually differ from those found in customary and completive verb forms. Thus, for instance, 'I' is expressed with the prefix e- in a continuative verb, but with a suffix -n in customary and completive verbs. Here the verb stem is t'ap 'fire at'.

Continuative: k^W-*e*-sc-t'ap-ám 'I am firing at you'

Customary: t'ap-s-tóm-*n* 'I fire at you'

Completive: t'ap-n-cé-*n* 'I fired at you'

The aspect markers are sc- 'continuative, -s 'customary', -n 'completive'. 'Thee' is expressed differently in each example: k^W-, -tóm, and -cé.

Pronouns that appear in transitive continuative constructions are often found in intransitive construction, regardless of aspect. Thus k^W- 'thee' and e- 'I', that appeared in the first of the above transitive illustrations also occur in the following intransitive forms.

k^{W}sc'eɬnx	'you are eating': continuative
k^{W}s$^{?}$eɬnx	'you eat': customary
k^{W}'eɬnx	'you ate': completive

esc^{ʕ}ác̓x	'I am looking': continuative
es^{ʕ}ác̓x	'I look': customary
e^{ʕ}ác̓x	'I looked': completive

From the preceding statements, it is apparent that Okanagan pronouns can be roughly subdivided into two groups.

1. Those that appear in transitive customary and transitive completive constructions.
2. Those that appear in transitive continuative and intransitive constructions.

The first group of constructions is characterized by the presence of aspect suffixes, while aspect prefixes appear in the second group. On page 161 above, the sub-groupings of Okanagan pronouns are charted in terms of aspectual accompaniment.

In considering the sequence of morphemes that constitute transitive utterances, we note that there are two distinct constructions: one that includes the -am 'indefinite object' morpheme, and one that does not. Examination of the pronouns involved in the two constructions shows that, generally speaking, different sets of pronouns are used, and only occasionally does one given pronoun occur in both constructions.[94]

The main structural difference between these two constructions is that when -am 'indefinite object' is present, the aspect marker

precedes the stem. When -am is absent an aspect marker follows the stem. In the examples, ca$^{?}$ 'punch' is the stem morpheme.

e-sc-ca-ám 'I am punching him' : sc- 'continuative aspect'

ca$^{?}$-n-tén 'I punched him' : -n 'completive aspect'

The first example typifies a transitive continuative construction, when -am is always present.

In the -am construction the subject prefix expresses first or second person, while the subject suffix expresses second person plural or third person. Third person object is never overtly present, except in the form -am, e.g. knt'apám 'I shot at something'. When the object is other than third person, a specific marker is present to denote it, and -am is still present, e.g. k^{W}esct'apám 'I am shooting at thee', the pronoun prefixes being k^{W}- 'thee', e- 'I'.

In this first construction, aspects expressed are sc- 'continuative' and s- 'customary'. Absence of an aspect marker denotes 'completive aspect'.

Continuative: knsct'apám : 'I am shooting at something'

Customary: knst'apám : I shoot at something'

Completive: knt'apám : I shot at something'

Aspect suffixes never appear in this construction.

In the second construction mentioned above, where -am is absent, subject prefixes are never used. The pronoun prefix denotes first person object only. The other pronouns are all suffixes; and the object suffix always precedes the subject suffix, but occasionally

the third person object pronoun is not overtly expressed. A 'customary aspect' prefix s- occurs with the -s 'customary' suffix, but the presence of the former in transitive customary verb forms is not obligatory. 'Completive aspect' in this construction is expressed with the suffix -n 'completive'. Ordering of morphemes in this construction is

1. 1st person object
2. s- 'customary aspect'
3. stem
4. -s 'customary aspect' or -n 'completive aspect'
5. 2nd or 3rd person object
6. subject

Examples are

ko-wék-n-tx^{w} 'you saw me' (me - see - completive - thou)

ko-s-wék-s-tx^{w} 'you see me' (me - customary - see - customary - thou)

wek-n-c-n 'I saw you' (see - completive - thee - I)

The continuative aspect morpheme sc- is never used in this construction. But a meaning similar to 'continuative' can be achieved through use of the 'incomplete process' morpheme following the Class 10 locative suffix, for instance -an 'place'.

k'amtenán 'I sat on him' : completive construction

k'amtenaán 'I am sitting on him' : completive construction

that includes the 'incomplete process' morpheme identified by the reduplicated a in the suffix.

The various verb forms discussed to this point are illustrated in paradigmatic representation in the Appendix.

In a discussion of the pronoun -am 'indefinite object', it can be noted that the addition of this morpheme to certain verbs can result in a change from intransitive to transitive meaning.

knpex̣ 'I hunted'; knpex̣m 'I hunted something'

knppoλst 'I was beaten'; ekspóƛstm 'I shall beat him'

łelt eséwłk^{W} 'the water was splashing'; k^{W}łelm eséwłk^{W} 'you splashed the water'

knenqaqaxnékst 'I have my arms folded'; knqaqaxnékstm 'I folded my arms'

The presence of -am in an utterance denotes the presence of a vague object distinct from the verbal subject. Action of the verb is applied to that entity. In knpexm 'I hunted something' the object is not specified, whereas in k^{W}łelm eséwłk^{W} 'you splashed the water' the sentence object sewłk^{W} 'water' is specified.

The question arises whether -am 'indefinite object' should be considered a 'transitivizer'. This interpretation is not made for the following reasons.

1. -am is present in only few transitive constructions. See the Syntactic Sketch, page 77 above.

2. It is a Class 12 morpheme and called a pronoun. Morphophonemically, it patterns like a Class 12 morpheme, and not like a Class 11 verbalizer. It is classified as a variable suffix; and while there are ten other variable pronoun suffixes, there are no verbalizers in this category.[95]

The pronoun -am is discussed in other contexts in this description; see, for example, pages 156 and 193 above.

Five different first person morphemes and twelve different second person morphemes were listed at the beginning of this section. This perhaps large number of morphemes appears to be typical of Interior Salishan languages.[96] The independence of the Okanagan morphemes can be maintained on various grounds.

Distribution

The pronouns -tem '3 person subject' and -tem '3 person object' are distinct because of the rigid relative ordering of object and subject markers. The former always precedes the latter. Thus in kost'apstém 'he shoots at me', ko- 'me' is the object and -tem 'he' is the subject. But in st'apstéms 'he shoots at them', -tem is the object 'them' and -s is the subject 'he'.

The morphemes -tt 'we' and -tem 'we' are distinct because of the distribution of primary stress. The former is sometimes preceded by a variable suffix that has a variant with primary stress. The morpheme -tem 'we', being a variable suffix, never appears in such an environment.

Three morphemes -t 'we', -n 'I', and -s '3 person subject' all have the same restricted distribution. They all appear only after the sequence: aspect suffix plus second person object morpheme. We refrain from reclassifying them as variants of other morphemes for the reasons here given.

1. The first morpheme -t 'we' is distinct from -tt 'we', the first being used with aspect suffixes, the second being used with aspect prefixes. To combine the two would produce a unique distributional pattern for the resultant morpheme. No other subject pronoun occurs both with the aspect prefixes and with the aspect suffixes. In addition -tt sometimes means 'our'; -t 'we' never does.

2. The morpheme -n 'I' is distinct from -ten 'I', a variable suffix. Variable suffixes never appear unstressed following another variable suffix bearing primary stress. Thus in st'apstómn 'I shoot at you', the morpheme following -tóm 'second person object', a variable suffix, is an invariable suffix, since only these suffixes can occur unstressed in such an environment. Thus -n 'I' is an invariable suffix distinct from the variable suffix -ten.

3. The morpheme -s 'third person subject, transitive' is kept distinct from the morpheme -s 'third person subject/possessive', and continues the pattern established in the two previously discussed morphemes. These two third person morphemes are distinctively distributed, the former occurring only after a second person object suffix and the latter never so occurring. To combine the two into a single morpheme would produce a pronoun having a unique distribution, appearing with either a prefix or a suffix aspect marker.[97] Further, the second morpheme can have the meaning 'his' while the transitive morpheme can not. Interestingly, the morphophonemic rule n --→ ∅ /— s applies before -s 'third person subject, transitive', but not before -s 'third person subject/possessive'. Consequently, -men 'instrument' becomes -mé before the first, but mén before the

second. We illustrate with xl 'chop' : xl-mé-s : 'he chopped it', xlméns 'his axe'.

Meaning

The morphemes -tem 'we' and -tem 'third person' are distinct for reason of different semantic reference. The same applies to the second person morphemes -tex^{W} 'thou' and -te 'ye imperative completive'.

I. Imperative

Okanagan has six imperative pronouns, two of them intransitive, the remainder transitive.

1.	-x	'thou intransitive'
2.	-we	'ye intransitive'
3.	-t	'thou transitive completive'
4.	-te	'ye transitive completive'
5.	-tek^{W}	'thou transitive customary'
6.	-tek^{W}e	'ye transitive customary'[98]

Class 11 aspect markers do not accompany these pronouns.

Minimal elements in an imperative utterance are a stem morpheme and a pronoun indicating subject. A transitive imperative pronoun is preceded by -an 'locative'. Other morphemes are sometimes present depending on the notion expressed.

Imperative forms are illustrated and contrasted with non-imperatives.

1. -x 'thou intransitive'

cn$^{?}$ol̲x^{W}x 'come in!'; k^{W}cn$^{?}$ol̲x^{W} 'you came in'

kwapx 'be quiet!'; k^{W}kwap 'you were silent'

We note the Class 11 homophone -x 'non-future' and contrast:

motx 'he sat down'; motx 'sit down!'

There is no overt 3rd person marker in the first example.

2. -we 'ye intransitive'

ƛ'élwe 'be quiet!'; pƛ'elx 'you were quiet'

cxóywe 'come here!'; pcxoy 'you came here'

k^{W}éllwe 'sit down!'; pk^{W}ellx 'you sat down'

Sometimes p- 'ye intransitive nonimperative' and -we 'ye intransitive imperative' co-occur. Compare

pcnppelx^{W} 'you came inside'

cnppélx^{W}we 'come inside!'

pyayát pcnppélx^{W}we 'come on in, all of you!'

3. -t 'thou, transitive completive'

ƛ'aƛ'aánt 'look for it!'; ƛ'aƛ'a$^{?}$ntéx^{W} 'you looked for it'

ko^{q}ác'nt 'look at me!'; ko^{q}ác'ntx^{W} 'you looked at me'

4. -te 'ye, transitive completive'

kokł$^{?}$émnte 'wait for me!'; kokł$^{?}$émntp 'you waited for me'

ał$^{?}$éłnte 'eat it up!'; ał$^{?}$éłntp 'you ate it'

5. -tek^{W} 'thou, transitive customary'

tqntek^{W} 'put your finger on it!'; tqstex^{W} 'then you put your finger on it'

kocé$^{?}$sk^{W} 'leave me alone!'; kocé$^{?}$stx^{W} 'you left me alone'

6.. -tek^{W}e 'ye, transitive customary'

kołxnték^{W}e 'come with me!'; kołxstép 'then you came with me'

kocéˀsk^{W}e 'leave me alone!'; kocéˀstp 'you left me alone'

The two customary pronouns have variably stressed allomorphs that coincide with specific root classes. Such variants are not present in the corresponding completive pronouns. Instead, the variation takes place in the locative suffix.

The examples illustrate completive and customary imperative forms. There are no instances of distinctly imperative forms with continuative markers. However, notional imperatives can be expressed without resort to the above pronouns.

lot' aksnk'séls 'do not be mean!' (singular)

lot' akskłxonékstm 'do not let him go!' (singular)

syostx^{W} 'drink it!' (singular)

k'osˤác'mtt 'let us go and see it!'

koknxétx^{W} 'help me!' (singular)

ˤác'ntp 'look at him!' (plural)

II. Distributional Restrictions

Pronoun suffixes are variously distributed with respect to aspect markers and occasionally other pronouns. Some occur only with aspect prefixes and never with aspect suffixes; others occur in the converse environment.[99] Imperative morphemes occur without aspect markers of any kind. These restrictions are summarized below. There are no examples of first person subject occurring with first person object.

Some of the pronouns listed as being restricted in occurrence to an aspect prefix can be used without that prefix to express nominal possession, for instance -s '3 person subject/possessive': sc'ełnms 'he is eating something', sełns 'his food'. Other cases are listed in the Examples following Morpheme Classes 2 and 12.

The morpheme -tem '3 person object' accompanies no subject morpheme other than third person; and the pronouns -t 'we' and -n 'I' occur only after a second person object.

Distributional Restrictions Governing Pronoun Suffixes

More specific information concerning the aspect marker can be found on page 161.

Suffix		Meaning	Co-occurrent Aspect Marker
1.	-am	'indefinite object'	prefix
2.	-mp	'ye subject'	prefix
3.	-t	'we'	suffix
4.	-t	'thou imperative transitive completive'	none
5.	-te	'ye imperative transitive completive'	none
6.	-tep	'ye'	suffix
7.	-tem	'3 person subject'	suffix
8.	-tem	'3 person object'	-s 'customary'
9.	-tem	'we'	suffix
10.	-ten	'I'	suffix
11.	-tek^{w}	'thou imperative customary'	none
12.	-tek^{w}e	'ye imperative customary'	none

Suffix	Meaning	Co-occurrent Aspect Marker
13. -tex^{w}	'thou'	suffix
14. -tom	'2 person object'	-s 'customary'
15. -tt	'we'	prefix
16. -n	'I'	suffix
17. -łolm	'ye object'[100]	-n 'completive'
18. -lx	'3 person pluralizer'	prefix or suffix
19. -ce	'thee'[100]	-n 'completive'
20. -s	'3 person subject/possessive'	prefix
21. -s	'3 person subject, transitive'	suffix
22. -we	'ye imperative, intransitive'	none
23. -x	'thou imperative, intransitive'	none

Examples of Class 12 Morphemes

1. -am 'indefinite object'

pescƛ'aám 'I am looking for you' (p-e-sc-ƛ'a-ám : you plural - I - continuative - seek - indefinite object)

pescˤácm̓ 'I am watching you' (p-e-sc-ˤác'-m : you plural - I - continuative - look at - indefinite object)

pscƛ'aáms 'he is looking for you' (p-sc-ƛ'a-ám-s : you plural - continuative - seek - indefinite object - 3 person)

lot koaksnqʷnménm 'do not pity me' (ko-a-ks-n-qʷn-mén-m : me - thou - intentional - on - pity - instrument - indefinite object)

kncpex̣m 'I am always hunting something' (kn-c-pex̣-m : I - durative - hunt - indefinite object)

knsck'olmnm 'I am using it' (kn-sc-k'ol-mn-m : I - continuative - do - instrument - indefinite object)

2. -mp 'ye subject, your plural'

slax̣láx̣tmp 'your friends' (s-IT-láx̣-t-mp : nominalizer - iterative - friend - integral characteristic - your plural)

koleéwmp 'I am your father' (ko-leéw-mp : I - father - your plural)

koscˤác̓mp 'you are looking at me' (ko-sc-ˤác'-mp : me - continuative - look at - ye subject)

3. -t 'we'

kłkmkmxłolmt 'we grabbed your leg' (kł-IT-km-x-łolm-t : towards - iterative - hold plural objects - leg - ye object - we)

kʷaʔncét 'we bit you' (kʷaʔ-n-cé-t : bite - completive - thee - we)

skecstmt 'we meet you' (s-kec-s-tm-t : customary - come - customary - 2 person object - we)

4. -t 'thou imperative, transitive completive'

ełnt 'eat it!' (eł-n-t : eat - locative - thou)

p'ecnt 'squeeze it!' (p'ec-n-t : squeeze - locative - thou)

poxnt 'blow it!' (pox-n-t : blow - locative - thou)

łwant 'stab it!' (łw-an-t : stab - locative - thou)

caant 'punch him!' (ca-an-t : punch - locative - thou)

koxʷécłt 'give it to me!' (ko-xʷéc-ł-t : me - give - dative - thou)

5. -te 'ye imperative, transitive completive'

ałˀéłnte 'eat it!' (ał-ˀéł-n-te : iterative - eat - locative - ye)

łélnte 'sprinkle it!' (łél-n-te : sprinkle - locative - ye)

łp'ánte 'mark it!' (łp'-án-te : mark - locative - ye)

koxʷécłte 'give it to me!' (ko-xʷéc-ł-te : me - give - dative - ye)

kokłˀémnte 'wait for me!' (ko-kł-ˀém-n-te : me - at - sit - locative - ye)

6. -tep 'ye subject'

kost'apstép 'you shoot at me' (ko-s-t'ap-s-tép : me - customary - aim at - customary - ye)

kosˤác'stp 'you look at me' (ko-s-ˤác'-s-tp : me - customary - look at - customary - ye)

kot'apntép 'you shot at me' (ko-t'ap-n-tép : me - aim at - completive - ye)

kowékntp 'you saw me' (ko-wék-n-tp : me - see - completive - ye)

7. -tem '3 person subject'

kost'apstém 'he shoots at us' (ko-s-t'ap-s-tém : us - customary - aim at - customary - 3 person)

koswékstm 'he saw us' (ko-s-wék-s-tm : us - customary - see - customary - 3 person)

kok^{W}a$^{?}$ntém 'it bit me' (ko-k^{W}a$^{?}$-n-tém : me - bite - completive - 3 person)

kokécntm 'he met us' (ko-kéc-n-tm : us - come - completive - 3 person)

koca$^{?}$ntés 'he punched me' (ko-ca$^{?}$-n-tés : me - punch - completive - 3 person)

s^{ʕ}acstés 'he tied him up' (s-^{ʕ}ac-s-tés : customary - tie up - customary - 3 person)

t'apncés 'he shot at you' (t'ap-n-cé-s : shoot at - completive - thee - 3 person)

kowéks 'he saw me' (ko-wék-s : me - see - he)

8. -tem '3 person object'

st'apstéms 'he shot at them' (s-t'ap-s-tém-s : customary - shoot at - customary - 3 person object - 3 person subject)

k^{W}astémslx 'they bite them' (k^{W}a-s-tém-s-lx : bite - customary - 3 person object - 3 person subject - 3 person pluralizer)

s^{ʕ}ac̓stmslx 'they look at them' (s-^{ʕ}ac̓-s-tm-s-lx : customary - look at - customary - 3 person object - 3 person subject - 3 person pluralizer)

9. -tem 'we'

st'apstém 'we shoot at it' (s-t'ap-s-tém : customary - shoot at - customary - we)

swekstm 'we see him' (s-wek-s-tm : customary - see - customary - we)

k^{W}a$^?$ntém 'we bit it' (k^{W}a$^?$-n-tém : bite - completive - we)

kecnt́mlx 'we met them' (kec-n-tm-lx : come - completive - we - 3 person pluralizer)

10. -ten 'I'

slk'sten 'I tied them up' (s-lk'-s-ten : customary - bind - customary - I)

s^{ʕ}ác'stn 'I look at him' (s-^{ʕ}ác'-s-tn : customary - look at - customary - I)

k^{W}a$^?$ntén 'I bit it' (k^{W}a$^?$-n-tén : bite - completive - I)

11. -tek^W 'thou imperative, transitive customary'

łk$^{W'}$ntek^W 'thread it!' (łk$^{W'}$-n-tek^W : pierce - locative - thou)

sa^{ʕ}nték^W 'drain it!' (sa^ʕ-n-ték^W : pour away - locative - thou)

kokxnték^W 'come with me!' (ko-kx-n-ték^W : me - walk - locative - thou)

łx̣^{W}ntek^W 'make a hole!' (łx̣^{W}-n-tek^W : hole - locative - thou)

12. -tek^{W}e 'ye imperative, transitive customary'

łk$^{W'}$nték^{W}e 'thread it!' (łk$^{W'}$-n-ték^{W}e : pierce - locative - ye)

kxnték^{W}e 'go with him!' (kx-n-ték^{W}e : walk - locative - ye)

^{ʕ}acnték^{W}e 'tie it up!' (^{ʕ}ac-n-ték^{W}e : tie - locative - ye)

łq^{W}nték^{W}e 'put it away!' (łq^W-n-ték^W : store - locative - ye)

13. -tex^{W} 'thou'

koslk'stéx^{W} 'you tied me up' (ko-s-lk'-s-téx^{W} : me - customary - bind - customary - thou)

swekstx^{W} 'you see him' (s-wek-s-tx^{W} : customary - see - customary - thou)

ca^{ʔ}ntéx^{W}lx 'you hit them' (ca^{ʔ}-n-téx^{W}-lx : punch - completive - thou - 3 person pluralizer)

kotx^{W}t'pméntx^{W} 'you attacked me' (ko-t-x^{W}-t'p-mé-n-tx^{W} : me - towards - run - aim at - instrument - completive - thou)

14. -tom '2 person object'

st'apstómslx 'they shoot at you' (s-t'ap-s-tóm-s-lx : customary - aim at - customary - 2 person - 3 person - 3 person pluralizer)

st'apstóms 'he shoots at you' (s-t'ap-s-tóm-s-lx : customary - aim at - customary - 2 person - 3 person - 3 person pluralizer)

s^{ʕ}ac'stmt 'we watch you' (s-^{ʕ}ac'-s-tm-t : customary - look at - customary - 2 person - we)

15. -tt 'we, our'

ełntt 'we ate' (ełn-tt : eat - we)

asél est'áptt 'we shot two' (e-s-t'áp-tt : proclitic - customary - shoot at - we)

yaleéwtt 'Our Father' (ya-leéw-tt : all - father - our)

16. -n 'I'

scaq'stómn 'I hit you' (s-caq'-s-tóm-n : customary - hit - customary - 2 person object - I)

kecncn 'I met you' (kec-n-c-n : come - completive - thee - I)

wekłmn 'I saw you' (wek-łm-n : see - ye object - I)

17. -łolm 'ye object'

lk'łolmn 'I tied you up' (lk'-łolm-n : bind - ye object - I)

kecłmt 'we met you' (kec-łm-t : come - ye object - we)

t'at'apłólms 'he was shooting at you' (Ia-t'ap-łólm-s : iterative - aim at - ye object - 3 person subject)

18. -lx '3 person pluralizer'

sckeclx 'they are coming' (sc-kec-lx : continuative - come - 3 person pluralizer)

cxoyslx 'they came' (c-xoy-s-lx : hither - go - 3 person - 3 person pluralizer)

kosláx̣clx 'I am their friend' (ko-s-láx̣-t-s-lx : I - nominalizer - friend - integral characteristic - 3 person possessive - 3 person pluralizer)

kot'apntéslx 'they fired at me' (ko-t'ap-n-tés-lx : me - aim at - completive - 3 person - 3 person pluralizer)

t'at'apntémlx 'we fired at them' (Ia-t'ap-n-tém-lx : iterative - aim at - completive - we - 3 person pluralizer)

19. -ce 'thee'

lk'ncen 'I tied you up' (lk'-n-ce-n : bind - completive - thee - I)

kecnc 'he met you' (kec-n-c : come - completive - thee)

k^{W}a$^{?}$ncés 'it bit you' (k^{W}a$^{?}$-n-cé-s : bite - completive - thee - 3 person subject)

weknct 'we saw you' (wek-n-c-t : see - completive - thee - we)

łp'nceslx 'they marked you' (łp'-n-ce-s-lx : mark - completive - thee - 3 person subject - 3 person pluralizer)

20. -s '3 person subject, 3 person possessive'

łłt'améntns 'his fishing rod' (łł-t'a-mén-tn-s : fish - strike at - instrument - nominalizer - 3 person possessive)

łłt'ams 'he is fishing' (łł-t'am-s : fish - strike at - 3 person subject)

sp'aps 'he was struck with a stick' (s-p'-ap-s : customary - strike with long object - body - 3 person subject)

spoosc 'his heart' (s-po-os-c : nominalizer - beat - body - 3 person possessive)

scq'eltxs 'he is sick' (sc-q'el-t-x-s : continuative - be sick - physical condition - non-future - 3 person subject)

xlmenslx 'their axe' (xl-men-s-lx : chop - instrument - 3 person possessive - 3 person pluralizer)

21. -s '3 person subject, transitive'

caˀncós 'he punched you' (caˀ-n-cé-s : punch - completive - thee - 3 person subject)

sˁac̓stms 'he looks at you' (s-ˁac̓-s-tm-s : customary - look at - customary - 2 person object - 3 person subject)

xlmeslx 'they used an axe' (xl-me-s-lx : chop - instrument - 3 person subject - 3 person pluralizer)

kʷałólmslx 'they bit you' (kʷa-łólm-s-lx : bite - ye object - 3 person subject - 3 person pluralizer)

kʷastóms 'it bites you' (kʷa-s-tóm-s : bite - customary - 2 person object - 3 person subject)

kecłmslx 'they met you' (kec-łm-s-lx : come - ye object - 3 person subject - 3 person pluralizer)

22. -we 'ye imperative, intransitive'

atxélxwe 'go to sleep!' (atx-élx-we : sleep - physical exertion - ye)

ał^{ʔ}éłnwe 'eat!' (ał-^{ʔ}éłn-we : iterative - eat - ye)

ƛ'élwe 'be quiet!' (ƛ'él-we : be silent - ye)

lk^{W}élxwe 'go away!' (lk^{W}-élx-we : move off - physical exertion - ye)

k'ólwe 'get to work!' (k'ól-we : work - ye)

kwápwe 'be quiet!' (kw-áp-we : be silent - body - ye)

23. -x 'thou imperative, intransitive'

ƛ'elx 'be quiet!' (ƛ'el-x : be silent - thou)

tełxx 'stand up!' (teł-x-x : straighten - body - thou)

łt'pmncotx 'jump!' (łt'-p-m-n-cot-x : jump - body - instrument - locative - self - thou)

łkemx 'sew!' (łk-em-x : sew - body - thou)

k'olcncótx 'cook!' (k'ol-c-n-cót-x : make - mouth - locative - self - thou)

xoyx 'go away!' (xoy-x : go - thou)

FOOTNOTES

[1] 'Word classes' identifiable on the basis of 'morphological construction'. Bloch and Trager 1942:60.

[2] Typical is Boas's description of Kwakiutl where 'there remain only few classes of words---nouns, verbs, and particles'. Boas 1911: 443. See also comments by Voegelin and Voegelin 1969:192.

[3] In terms of overt morphemes, the noun-verb dichotomy is equally vague in other Salishan languages. E.g. 1. Squamish: See Kuipers 1968. 2. Coeur d'Alene: Reichard 1938:634 notes that 'the relationship between noun and verb is so close . . .' yet maintains the dichotomy even when she finds the s- nominalizer in the verb, producing a 'verbal noun' (Reichard 1959:158). Later she states 'If it is granted that there is little conceptual difference between noun and verb, nominal incorporation might be considered as verbal compounding . . .' (Reichard 1959:239, similarly, page 155). 3. Coeur d'Alene and Kalispel: 'In both CA and Kal some nouns have an initial other than s; they contain stems that I consider as verbal' (Reichard 1959: 160). Reichard then proceeds to criticize Vogt for lack of clarity in distinguishing noun and verb. Vogt 1940b:23-4 himself established nouns and verbs for Kalispel both of which can be possessed; adjectives are a subclass of verbs, and all verbs can be nominalized. But form class criteria can still distinguish noun and verb. Nevertheless, a single form can still be interpreted both as 'he is chief' (noun) and 'he is (being, functioning as) chief (verb)'. On page 41 Vogt lists 'Semi-nominal Forms' and on page 75 describes 'hybrid nominal-verbal forms'. 4. Snoqualmie-Duwamish: '. . . there is absolutely no distinction between some nouns and verbs'. (Reichard 1959:154). 5. Bella Coola: Newman 1969a:176 avoids 'noun' and 'verb' in discussing B.C. word classes. Any inflected word may fulfill either role.

[4] Bloomfield 1933:196.

[5] Okanagan, like some other languages, lacks a marker that resembles English 'to be' with the sense of 'having a place in a class of notions'. If we avoid the verb 'be', we can still find yaˁtékn signifying 'pig' (noun) or 'he ran along the fence' (verb).

[6] Greenberg 1968:71.

[7] For corresponding orders in Coeur d'Alene and Bella Coola see respectively Reichard 1938:601 and 629, and Newman 1969a:175.

[8] Statement modified from Nida 1949:82.

[9] Cf. Statement by Whorf 1938 in Carroll 1956:132. The term 'root' carries no historical inference. See footnote in Bloomfield 1938:240.

[10] In our English glosses we make no attempt to equate the Okanagan part of speech, which varies with affixation.

[11] We note five roots which remind us of the Athabascan classificatory system: gep 'long object stands', p'oʔ 'strike with long object', mˤaʔ 'long object lies', ʔop 'stringlike object is', ław 'splintered object is'. See Hoijer 1945:13-23, and Davidson et al. 1963: 30-41.

[12] When they are significant in the discusstion we underline roots.

[13] Reichard 1959:15.

[14] Cf. Kalispel uc 'dubitative' in Vogt 1940b:171.

[15] Okanagan is 'typically Salish' in having a 'general stem for describing body parts'. Reichard 1960:53.

[16] Whorf's description applies here. Particles 'are words which have either no inflections of few or irregular ones and are distinguished from other parts of speech like pronouns, nouns, verbs . . .' Whorf 1946:163. Three types of structural morphemes are established by Hale 1969:203-12. He calls them root, affix and particle. Unlike affixes particles are free. That is they do not obligatorily combine with noun or verb stems to form words. Unlike roots they are typically uninflected. They are grouped together on the basis of this morphological homogeneity which is, however, a negative one--uninflected status. Semantically and syntactically, however, they are quite heterogeneous. Established usage calls these forms particles. E.g. Schultz-Lorentzen 1945:47-50, Teeter 1964:52-5, Newman 1965:61-5, Sapir and Hoijer 1967:104-21. Newman 1969:177 states that Bella Coola particles are 'invariably uninflected'. They are called 'adverb' in Sapir 1930: 268-72 and in Miller 1965:182.

[17] A stem without affixation can be considered verb or noun when examined in isolation. As a verb it would be a third person completive intransitive form since an overt third person marker is not obligatory, nor is there an overt completive marker with intransitive verbs. Hence the statement by Reichard 1959:154 'the Fundamental Salish unit is an independent verb stem'. She regards the 3 person completive form as a sort of infinitive. In Okanagan the 'fundamental unit' could also be a noun.

[18] Suyápi in Kalispel (Vogt 1940b:64), suyɛ́pəmš in Coeur d'Alene, so·yá·po· in Nez Perce, and šuyápu in Sahaptin. Aoki 1970:15.

[19] Also noted in Coeur d'Alene. Reichard 1939:620.

[20] For terminology see Hess 1966:350-6.

[21] Newman 1969:175 comments on the highly elaborate set of reduplicating techniques in Bella Coola that express only two functions: continuative and diminutive. Okanagan techniques express seven.

[22] Vogt 1940b:64 notes the use of glottalization in Kalispel diminution. See also Reichard 1948:638-9 for Coeur d'Alene and Reichard 1959:252 for general Salish. 'Evidences of infixed glottal stop are found in most languages of the Popoloca-Zapotecan group . . . . Evidence . . . shows that the meaning in Zapotec and Mixtec is one of diminution, lesser degree, endearment . . . .' e.g. Mitla Zapotec benn 'person', biˀnn 'young person'. Swadesh 1964:170.

[23] Vogt 1940b:76-7 has a similar discussion with k'ul 'work' where glottalization helps to distinguish different iterative meanings.

[24] Both Vogt 1940b:76 and Reichard 1938:634 and 1959:242 discount the presence of an exclusively 'plural morpheme' in the Salish languages they examine.

[25] Reichard 1959:243 notes that Coeur d'Alene and Kalispel both have final reduplication 'apparently with nearly the same meaning', but gives no statement of meaning. In Reichard 1938:637 we find 'Final reduplication expresses the idea of "it came to be . . .". Since this idea is also implicit in medial reduplication, it seems that the difference is not primarily one of meaning, but rather one of process involving a different classification of verbs'. This statement is inapplicable to Okanagan where a definite meaning difference is observable between -IP and -CP. Vogt 1940b:62 applies the following meaning to final reduplication '. . . the verbal process develops gradually and comes to an end'.

[26] Vogt 1940b:60 comments on Kalispel reduplication 'In many cases . . . the function of the reduplication is no longer apparent, the reduplicated word exists in its own right as an independent stem'. A similar comment is made on page 62. The same might be made of Okanagan.

[27] A stem that can be preceded by ke- 'person' is a numeral.

[28] The q in this form is called 'puzzling' in Boas and Haeberlin 1927:126 because 'in all inland dialects (excepting Lillooet and Thompson) the word for "one" . . . is nko or naks'. Hill Tout 1911: 137-8 has nuks for Okanagan. Reichard 1938:632-43 has nak'ʷ for Coeur d'Alene; Vogt 1940b:44 has, for Kalispel, nk'u for things and cina(qs) for persons. Aoki 1970:33 thinks naqs comes from Sahaptian.

[29] t'aq' is 'cross over' according to Kuipers 1969:12.

[30] Kuipers 1969:19-20 glosses xac as 'complete'.

[31] Morphophonemically we expect asél to have the variant asl when a following morpheme has primary stress: aslax̣láx̣t. However, aslax̣láx̣t means 'thy friends', so we assume that both vowels of asél are retained in 'two friends' in order to distinguish it from 'thy friends'.

[32] The prefixes e- and t'e- are translated with English articles. But the two Okanagan morphemes can co-occur in a single utterance.

[33] Reichard 1938:659 notes a similar problem with Coeur d'Alene articles: '. . . some of their uses are as elusive and unresponsive to rule as the use of the articles in English . . . the idiom requires usage for which I at least am unable to find rules'.

[34] We gloss this term 'March', but February or April would be equally applicable, depending on when the snow disappears.

[35] It is also the stem in the place name Penticton, location of an erstwhile permanent camp. Incidentally, the examples illustrate how an affix can be used as a stem morpheme.

[36] Boas remarked on Chehalis: '. . . in combination of two verbs, the first verb (often our adverb) takes the pronominal subjective endings while the second verb remains unmodified. If it is a transitive verb it retains the pronominal object'. Boas, Notebook 12. Reichard 1959:159 modifies Boas's Chehalis statement: '. . . the second verb may repeat the subject of the first verb and contain the object as well'. Both these statements apply to Okanagan.

[37] The -lx '3 person pluralizer' morpheme appears to be used less frequently in the Penticton dialect than in the Head of the Lake dialect.

[38] Vogt 1940b:29 notes similar pairs for Kalispel, calling ye- 'I, dependent' and čin- 'I, independent'. Reichard 1959:158 writes 'In Tillamook there are finite and subordinate forms distinguished, as are those of CA and Kal, by different pronominal affixes and sometimes, but not always, by s- 'nominalizer'. The use of these forms seems to be a matter of indifference'. This final comment applies to Okanagan. Informants were unable to distinguish semantically between en- 'I' and kn- 'I' when used before Class 5 verbalizers. While kn- functions exclusively as subject, en- can function either as subject or as possessive. Hoard 1970:19 comments on this dual function in Proto-Salish.

[39] In this word we believe there has been a confusion between the Class 3 s- 'nominalizer' and the Class 7 nominal prefix ł- 'kin'. The Douglas Lake dialect of Okanagan has Class 7 morphs ł- 'kin' and s- 'kin'. Intercourse between the two groups has brought the Douglas Lake Class 7 s- morph into the Head of the Lake dialect where it is optionally used in this one word as a Class 3 s- 'nominalizer'.

[40] Nor does it have a root morpheme 'to be'.

[41] Reichard 1959:156,158. Her statements that they are more often found in the third person, and that they are always intransitive do not apply to Okanagan. Vogt 1940b makes no specific mention of static and active verbs.

[42] These three aspects are noted for Coeur d'Alene and Kalispel. See respectively Reichard 1938:574,581-4 and Vogt 1940b:28-42. Vogt uses the term 'resultative', not customary, but Reichard 1959:14,160 equates resultative and customary 'whatever their meaning'. We use 'customary' for Okanagan but find its meaning very similar to Vogt's resultative.

[43] This compares with the situation in Kalispel, which probably accounts for Vogt's terminology, 'resultative'. But while the resultative has only transitive occurrence, Okanagan customary is used both transitively and intransitively.

[44] Coeur d'Alene and Kalispel both lack completive prefixes. See Reichard 1938:574 and Vogt 1940b:28.

[45] We consider p- 'ye subject' and p- 'ye object' to be distinct morphemes. Nowhere in the data do we find one morpheme functioning both as subject and as object.

[46] Brackets indicate rare co-occurrence. When we compose verb forms with such co-occurrences and presented them to the informants, they accepted them.

[47] Reichard 1959:8,9,90 makes similar statements for other Salishan languages. But we see no justification for stating that customary is a modification of completive, as Reichard does, 1959:14,160, rather than saying the opposite.

[48] Reichard 1938 called two divisions 'Locative Prefixes' (594-7) and 'Directional Prefixes' (597-601). But in Reichard 1959:160 these same prefixes are combined in a single group with the comment: 'In CA and Kal many adverbial ideas of place and direction are expressed by prefixes . . . (they) have not been classified [i.e. subclassified] because they are too varied in meaning.' Vogt 1940b subdivides the Kalispel prefixes for distributional reasons. He presents Preverbs, which are 'adverbial elements . . . which are placed before the preverb and the continuative prefix' (47).

[49] Pages 127-8 above.

[50] Reichard 1959:161 raises the possibility with certain Coeur d'Alene and Kalispel morphemes: '. . . CA and Kal have some stems comparable with some of their own prefixes'. But she gives no examples.

[51] Reichard 1938:568 chooses this second alternative for analysis of Coeur d'Alene 'outer ear'. See also Reichard 1959:155.

[52] We note the comparative brevity of the Okanagan and Kalispel prefixes in comparison with Coeur d'Alene counterparts. Respective examples are 'thither': t-, t-, ta-; 'in': n-, n-, hin-; 'again': ł-, uł-, uł-; 'hither': c-, c-, tcits-; 'at': kł-, cł-, tk^{W}ał. See Reichard 1938:597-601 and Vogt 1940b:45-7.

[53] This nonspatial reference could be considered figurative. For a description of the 'figurative' uses of Old English prepositions which at one time indicated place almost exclusively, see Kellner 1924:269.

[54] Newman 1969:175 notes that the small number of Bella Coola derivational prefixes duplicate functions which are more commonly expressed through suffixation. In Okanagan, Class 3 nominalizing prefixes are functionally duplicated by certain Class 10 suffixes.

[55] Reichard 1938 and Vogt 1940b do not have a distinct prefix class comparable to Okanagan Class 7; but evidence appears positive that such a class could be established for Coeur d'Alene including the morphemes for 'offspring' (para 377a), 'companion' (para 378), 'spouse' (para 379), 'horse' (para 380) in Reichard 1938:592. Reichard includes these morphemes with the s- 'nominalizer' which, however, has a clearly different function. The aspect morpheme follows the four mentioned morphemes. Three morphemes in Kalispel appearing to have similar distributions express 'companionship' (para 147), 'wife' (page 157) and 'people'. This last prefix is called a 'nominal prefix' (para 138) and a 'verbal prefix' (para 148). See Vogt 1940b:50,138.

[56] Listed under Stem Morphemes.

[57] Kalispel has epł- 'possession'. See Vogt 1940b:50.

[58] For an illustration of this problem in Coeur d'Alene see Reichard 1938:685.

[59] A corresponding morpheme -p, called 'verbal suffix' appears in Coeur d'Alene indicating 'action not voluntary on the part of the subject' (Reichard 1938:579), and 'a state or condition arrived at without the volition of the subject' (Reichard 1959:157). Kalispel has the forms -ap, -ip, -p 'without interference of the subject, without intention' (Vogt 1940a:51, Reichard 1959:157). Newman 1968:26 refers to this morpheme as 'medio-passive voice'. Reichard notes that stem reduplications of the form CVC to CVCC and CVC to CVCVC produce the same meaning in Coeur d'Alene: 'it came to be . . . without effort on part of subject' (Reichard 1938:579), 'without effort on part of the subject' (Reichard 1959:158). While this type of reduplication occurs in both Kalispel and Okanagan the idea of passive subject involvement is not apparent in Okanagan. At this point we might note that Okanagan has no series of pronouns that are exclusively passive, corresponding to those listed for Coeur d'Alene and Kalispel in Reichard 1959:15.

[60] The characteristics of primary and variable suffixes are described under Morphophonemics.

[61] See Vogt 1940b:58. Reichard 1959:163 considers the possibility that Kalispel -mist is a unit morpheme 'entire body' and weighs the possibility against its being a combination of -m and -ist 'surface of a round object', which as parallels in Coeur d'Alene and Kalispel. But she is unable to gloss -m, unaccountably ignoring -m 'causative'. On page 161 she also presents -ust 'movement along' for Kalispel and Coeur d'Alene without considering that the same morpheme could be present in -mist. Vogt 1940a:58 is ambiguous about whether the Kalispel suffix is one or two morphemes: 'The suffix -ist has the enlarged form: -mist which obviously is the result of a combination'.

[62] See also -t 'capable of producing' below.

[63] This morpheme appears to be a cognate of Kalispel -ɫt listed under 'Relative forms' of the verb, Vogt 1940b:29, also 34. Reichard 1959:15,93 says that Vogt 'failed to isolate' the morpheme in question. Vogt's data on the mentioned pages also seem to contain a cognate, -s, of Okanagan -xt 'dative, indirect object'.

[64] Reichard 1938:605.

[65] Reichard 1938:685 on Coeur d'Alene.

[66] Reichard 1959:162, discussing -m in Coeur d'Alene and Kalispel.

[67] Numbers represent morpheme classes.

[68] Base forms are discussed in the Morphophonemics.

[69] A similar morpheme is posited for Coeur d'Alene in Reichard 1938:605, and Reichard 1959:162-3. See also Vogt 1940b:50,59 for Kalispel. We suspect Coeur d'Alene -Em 'attempt' in Reichard 1959:162 to be a misprint for -En 'attempt' noted in Reichard 1938:605 and Reichard 1959:11,162.

[70] Reichard 1938:608 notes -mEn 'used for' in Coeur d'Alene, and Vogt 1940b:59 has -min 'instrumental' in Kalispel.

[71] The English gloss in this example is not intended to indicate a passive verb form, but rather a static one, as in the German ich war geschlagen, not ich wurde geschlagen.

[72] Reichard 1938:576 has -Em 'psychological object' for Coeur d'Alene but rejects its pronominal status in Reichard 1959:162, where she also rejects similar status for a similar Kalispel morpheme. Vogt 1940b:29,50 calls Kalispel -Em 'stem formant continuative'. Interestingly, Bella Coola has a suffix -m, which, according to Newman 1969:177, has a transitivizing effect on otherwise intransitive roots.

[73] Illustrated under Class 11 and 12 morphemes.

[74] See Reichard 1938:578 for a similar morpheme.

[75] See Reichard 1938:578 for a similar morpheme.

[76] This morpheme appears to compare with 'transitive' morphemes established for other Interior languages by Reichard 1959:11,13,162. Vogt 1940b:29,50 calls Kalispel markers with -n 'stem forming suffix' and 'Class IV completive'. It is not clear whether one or two different morphemes are involved. If there are two, the former would be comparable to Okanagan -an 'locative', and the latter to Okanagan -n 'completive'.

[77] Reichard 1959:12 established comparable morphemes for Coeur d'Alene and Kalispel. The Okanagan morpheme -ten 'I' is listed on the chart, page 161 above, and exemplified among the Class 12 morphemes below.

[78] After Reichard 1959:161. Comparable Salishan suffixes are called 'etymological' by Edel 1939:24f, 'nominal' by Reichard 1938:608f, 'field' by Vogt 1940b:51f, 'lexical' by Kinkade 1963:353-6 and by Newman 1968.

[79] Newman 1968, esp. page 10. The only Okanagan material that we have from Edward Sapir is a single page listing of nominal-locatives expressing 'canoe', 'fathom', 'head', 'house', 'long object', 'round object'. Sapir 1913.

[80] Newman 1968:12 numbers the lexical suffixes for certain Salishan languages as follows: Bella Coola: 51, Coeur d'Alene: 74, Kalispel: 50, Snoqualmie-Duwamish: 16, Squamish: 74, Thompson: 187, Tillamook: 41, Upper Chehalis: 87.

[81] It is interesting to note that Eric Hamp remarked upon the lack of wild animals, fish, berry and plant suffixes in Newman's 1968 Workpaper. Scargill 1968:2.

[82] The base forms for 'hand', 'foot', and 'head' respectively are -eks, -x̣an, and -qen. In some of the examples a Class 6 preposition intervenes between pronoun subject and verb stem.

[83] Newman 1968:27 goes so far as to write: 'The lexical suffixes are not to be derived from noun roots, nor is their historical source to be sought in any class of root morphemes'. Reichard 1959:155 notes an 'interdependance of prefix, stem, and suffix' for Coeur d'Alene, but perhaps not particularly etymological.

[84] In other Salishan languages the nominal-locative suffixes come either immediately after the stem (in Bella Coola, Upper Chehalis, and largely in Snoqualmie-Duwamish) or take the second position after the stem (Kalispel and Coeur d'Alene), preceding most of the other suffixes. See Newman 1968:27 and 1969:175, Vogt 1940b:50, Reichard 1938:629, and 1959:161.

[85] Other writers on Salishan languages similarly reject the suggestion that nominal-locative suffixes are stem encorporations. E.g. Kuipers 1967:120f for Squamish, Newman 1968:34 for Bella Coola, Edel 1939:23 for Tillamook, and Kinkade 1963:353-6 for Upper Chehalis.

[86] A glottal stop in the stem sometimes expresses diminution. The following pairs suggest the presence of a glottal stop with a similar suffixal function. pomén 'drum', ppom$^{?}$én 'little drum'; ntx^{W}etk^{W} 'large valley', ntxo$^{?}$étk^{W} 'large valley'; knłwak 'I got soaked', knło$^{?}$ák 'I am getting soaked'; kkwap 'dog', kko$^{?}$áp 'dogs'; xamáł 'fly', xaxm$^{?}$áł 'little fly'; x^{W}ména 'trout', x^{W}x^{W}m$^{?}$ena 'rainbow trout'. In some of these instances, the glottal stop may not be a phoneme, in which case, the diminution would be phonemically marked by the /o/ instead of the /w/.

[87] Gloss from Haeberlin 1920:160.

[88] Squamish has sqa$^{?}$q 'younger brother', Kuipers 1967:109. Okanagan also has qqaqaék 'colt'.

[89] It is difficult to account for -wewx here. The Kalispel equivalent lacks a corresponding morpheme. Vogt 1940b:77.

[90] The term for 'Okanagan Valley', oknaqén, possibily includes this morpheme. The other morphemes are, however, difficult to isolate. One of them might be ok, an allomorph of wek 'see'. Alternately, the term might be related to kókwa 'stranger'. Informants attach only a geographical connotation to Okanagan. They refer to their language as selxen and to their people generally as sqelx^{W}, 'Indian', or in particular nk'maplqs 'Head of the Lake people'.

[91] Reichard 1959:158, also 154, and Reichard 1938:575.

[92] Reichard 1959:154 defends her procedure: 'This interpretation simplifies and clarifies a great many constructions which previously have seemed disparate'. For Okanagan we disagree.

[93] Snoqualmie-Duwamish has past and future markers. See Reichard 1959:154. Okanagan -x may be comparable to Coeur d'Alene -ic, 'used . . . to denote that--is going on'. See Reichard 1938:604. But the Coeur d'Alene suffix reduplicates while the Okanagan one does not.

[94] See the chart on page 161 above for the specific pronouns.

[95] We incidentally note that informants frequently translate -am as some vague object, 'something'. Reichard finds a similar morpheme in Coeur d'Alene which she glosses as 'psychological object' in Reichard 1938:576. But in Reichard 1959:162 she changes her mind: 'I do not find good evidence that -Em is pronominal in CA or Kal'. It appears that she now includes the Coeur d'Alene suffix in -Em 'intransitive verb completor' listed in Reichard 1938:685. Vogt 1940b: 29,50 has for Kalispel -Em 'stem formant continuative' and -Em 'stem formant completive'.

[96] Similarities exist among pronoun morphemes of Okanagan, Kalispel and Coeur d'Alene, but close comparisons are difficult because of problems of isolating possibly related forms. Hoard 1970:14 remarks that '. . . the object pronouns in Salish languages are difficult to separate from the derivational affixes'. Vogt 1940b:33,36,38 frequently resorts to paradigms to present pronominal alternations in Kalispel. Reichard 1938 presents Coeur d'Alene pronouns as morphs (p.575), as assimilated aspect plus pronoun combinations, (p.581,584) and as paradigms (p.580-1, 686-94). In Reichard 1959:10-12 they appear in pronoun plus pronoun combinations, where she revises her 1938 statements on the basis of comparative evidence, commenting that the pronouns are 'so closely related to the rest of the verbal complex that they may become obscured by contraction with other parts of the complex'.

[97] Hockett 1958:275 proposes the 'almost universally accepted' principle: 'one does not assign two morphs to a single morpheme unless the resulting morpheme fits into the emerging grammatical picture of a language . . .'.

[98] Vogt 1940b:40 illustrates six comparable suffixes for Kalispel: -s, -ui, -t, -ti, $-sk^u$, -skui.

[99] Hence Reichard's idea of 'two systems' of personal pronouns for Salishan languages. See Reichard 1959:8, footnote 1, and pages 9 and 159.

[100] This morpheme is never followed by a suffix classified as 'variable' under Morphophonemics. Only 'invariable' pronouns come in this position.

CHAPTER FOUR

MORPHOPHONEMICS

Introduction

An Okanagan morpheme in different utterances is frequently represented by more than one phonemic sequence. Such sequences stand in alternation with each other in environmental terms. Our present aim is to generalize these alternations in groups of morphemes.

Since meaning is not a factor at this stage, we ignore cases of possible morphemic identity that semantics sometimes suggests. For example, the roots in the following utterances show some phonemic resemblance. But such phonemic variations are not systematic, and are not amenable to generalization. They all constitute independent morphemes.

tepyéq 'it is white', ecpáq 'it has white spots', poq 'mouse coloured'

ƛ'el 'he is quiet', ƛ'al 'he is dead'[1]

cex 'it is warm', caˤx̣ 'it is red', ceq̣ʷ 'it is bloody'

qʷ'ay 'black', qʷey 'dark brown', qʷ'oł 'dark brown'

qʷel 'red', qʷal 'hot, hot-looking'

qeem 'he is sucking', sqaém 'breast'

We describe allomorphic variation in phonological terms, when there are no grammatical constraints on the phonemic makeup of allomorphs that differ phonemically from the base form. When grammatical constraints are present, we describe the variations with morphological conditions applied. In both types of statement, degrees of generality

are achieved: some statements apply to a large number of morphemes distributed throughout the data; other statements concern a smaller number of morphemes, but which have a high frequency of occurrence.

In order that morphemic unity not be lost sight of in a plurality of allomorphs, and in order to establish a consistent referent for a given morpheme, we describe alternants in terms of a single base form.

Base Form

Allomorphic variations are described in terms of a base form. One morpheme has one base form,[2] which is an allomorph of that morpheme.[3] Some morphemes never change their phonemic shape from one occurrence to another. In these cases the base form is identical to every phonemic realization of that morpheme. In other instances, a morpheme is represented in different environments by differing phonemes or phoneme sequences, or even zero. In these instances, we select an allomorph as base form in such a way that a statement describing other allomorphs of that morpheme can be equally applied to the allomorphic variations of other morphemes. For example, two of the allomorphs for the suffix 'leg' are -x̣an and -x̣n. By selecting -x̣an as the base form, and describing the second allomorph in terms of vowel loss without specifying the vowel, we have a statement that can be applied to the variants of 'instrument' -men and -mn, a morpheme with a different vowel, if we select -men as the base form of this latter morpheme. Similar examples of vowel loss are found with numerous Okanagan suffixes.

Chameleon morphemes have such a wide variety of allomorphs, that little is to be gained from describing them in terms of a chosen phoneme sequence. Instead, they are designated with the formula used for their derivation. This distinguishes them from other chameleon morphemes, and serves as a mnemonic device for their derivation. Thus $D^{ʔ}$- represents a diminutive morpheme. D stands for 'diminutive'; ^{ʔ}is the glottal stop that usually marks the presence of this morpheme. It follows the initial consonant of the accompanying root. The hyphen indicates that the 'diminutive' is a bound morpheme which is combined with an accompanying root according to the following formula:

$$D^{ʔ}- + C_1VC_2 \dashrightarrow C_1^{ʔ}VC_2.$$

Examples of utterances in which $D^{ʔ}$- occurs are found on pages 116 and 323-4.

Types of Alternation

Okanagan has a number of morpheme alternants that are automatically conditioned; that is, they occur in accordance with the phonemic pattern of the language.[4] For example, the phoneme sequence VV is a common Okanagan phoneme pattern. The sequence $V^{ʔ}V$, on the other hand, never appears. Consequently, when the contiguity of two base forms of morphemes suggests this latter phoneme sequence across a morpheme boundary, an automatic morphophonemic rule is introduced eliminating the glottal stop thus: $V^{ʔ} + V \dashrightarrow VV$. For example, the morpheme ƛ'a^{ʔ} 'seek out' is realized with the glottal stop before -n 'completive aspect', but without the glottal stop before -am 'indefinite object'. /ƛ'à^{ʔ}ntén/ 'I looked for it', /ƛ'áám/ 'he looked for something'.

Other morpheme alternants are nonautomatic; that is, the phoneme sequence pattern of the language is not the primary conditioning factor. The alternants are conditioned rather by specific morphemes. A nonautomatic rule, for example, is $n \dashrightarrow \emptyset \; / \; \_\_\_ \; s$. The rule is nonautomatic since it is conditioned by grammatical information; for instance, the rule is applied before -s '3 person subject, transitive', but not before -s '3 person possessive'. Consequently, the 'instrument' morpheme -men is realized as /-me/ before the former -s morpheme, and as /-men/ before the latter -s morpheme, as illustrated with the root xl 'chop'.

xl + men + s ---> /xlmes/ 'he chopped it'

xl + men + s ---> /xlmens/ 'his axe'.

The realization of Okanagan morphemes is characterized by one or more of the following phenomena: invariant alternation,[5] automatic alternation and/or nonautomatic alternation. Unless it is stated to the contrary, a morpheme is realized with the phoneme sequence represented in its base form. For example, the morpheme expressing 'I', with the base form kn, is always realized as /kn/.

In the following description we present automatic alternations first. Nonautomatic alternations follow. The order of presentation in the second part is: stress alternation, followed by consonantal alternation, and vocalic alternation. Since certain consonantal alternations appear only in chameleon morphemes, we consolidate them under a specific chameleon morpheme heading.

AUTOMATIC ALTERNATION

1. Glottalization

C + ʔ --> C', where C is a stop phoneme.

kn + sc + ʔok^W + t (I - continuative aspect - crawl - move along)
--> /knsc'ók^{W}t/ 'I am crawling'

2. Deletion of glottal stop adjacent to an utterance boundary

ʔ --> ∅, before or after #.

ʔeɬn + x (eat - non-future) --> /éɬnx/ 'he ate'

kn + caʔ (I - cry out) --> /kncá/ 'I cried out'

3. Deletion of intervocalic glottal stop

ʔ --> ∅ / V - V

s + poʔ + os (nominalizer - go bump - body) --> /spóós/ 'heart'

4. Assimilation of t and s.

t + s --> c.

lot + s + tem (negative - nominalizer - substance) --> /lóctèm/
'nothing'

The pepet vowel does not separate t and s. This statement is not required in the pepet vowel rules (see page 55), when the phoneme c is posited. There is also a c' phoneme, but no s' phoneme.

NON-AUTOMATIC ALTERNATION

I. Stress Patterns

A classic problem in Salish linguistics is the accurate description of stress occurrence in generalized terms.[6] In Coeur d'Alene, for example, stress has been called 'a grammatical device which . . . has been exploited to incredible length'.[7] Such exploitation led

to many inconsistencies in the description of stress as set out by Reichard[8]--so many, in fact, that twenty years later she still considered stress as 'a major Salish problem'.[9]

Tweddell's account of Snoqualmie-Duwamish,[10] dialects of Puget Sound Coast Salish, has no description of stress occurrence. In some parts of the data, stress is not even marked. These dialects were further analyzed by Snyder[11], who described stress as being phonemic and appearing on roots and on suffixes. Snyder, however, ignored the question of stress distribution in his morphophonemics.[12]

Hans Vogt, describing Kalispel stress, remarks that 'It has not been possible to find the general rules which determine its place',[13] and illustrates his statement with examples that he calls 'contradictory'.

Stress rules are available for Twana, a distantly related Salishan language spoken until 70 years ago, along the Hood Canal on the Olympic Peninsula, Washington. Drachman makes such a presentation, and follows it with a section on irregular stress and a consideration of 'the problem of certain stress irregularities which appear to contradict the conclusions given above'.[14]

All these statements suggest that Salish stress distribution is elaborate. The situation in Okanagan is no exception. The description presented below accounts for stress location in all those utterances where the morphemes have been classified.

A. Illustration of the Problem

Okanagan has a number of suffixes which have some variants with

minimal stress. For example, -ce 'thee' appears in some environments as /cé/, and in others as /c/:

/caˀncén/ 'I punched you'; /wéknen/ 'I saw you'

Likewise, the language has a number of roots which have some variants with primary stress, and some variants with minimal stress. For example, wek 'see' appears now as /wek/, and now as /wk/.

The problem is, given a series of base forms, like wek + n + ce + n (see - completive aspect - thee - I), we have, to this point, no way of knowing whether 'I saw you', is */wékncén/, */wéknen/, or */wkncén/, since in some utterances primary stress occurs on both stem and suffix, while in others it occurs on the stem only, and in still others, it occurs on the suffix only.

The distribution of stressed and unstressed allomorphs can be stated with reference to the location in the utterance of primary stress. Since a large number of morpheme variants can be included within such a description, a statement of primary stress location in the utterance becomes valuable. To produce such a statement, we classify stem morphemes and suffixes, and describe the location of primary stress in the utterance in terms of these classes.

As an illustration, we call ˤac' 'look at' a Class A morpheme, and ˤac 'tie up' a Class B morpheme, and -ce 'thee' a Variable Suffix. We then state that, in the absence of certain morphemes specified below, when a Class A morpheme occurs with a Variable Suffix, primary stress falls on the stem. But when a Class B morpheme occurs with a Variable Suffix, primary stress falls on the suffix, thus:

^{q}ac' + n + ce + n (look at - completive aspect - thee - I) -->

/^{q}áchcn/ 'I looked at you'

^{q}ac + n + ce + n (tie up - completive aspect - thee - I) -->

/^{q}àcncén/ 'I tied you up'

B. General Stress Pattern

One prefix, talé- 'very' frequently bears primary stress. Otherwise primary stress falls only on the stem and/or a suffix. Under the following circumstances, primary stress occurs twice in an utterance.

1. When talé- 'very' precedes a morpheme with an initial phoneme other than e, primary stress falls once on the prefix, and once elsewhere.
2. When two like vowels occur contiguously, and the second bears primary stress, two primary stress peaks are heard.

We have no instances of talé- 'very' occurring in an utterance with two other primarily stressed vowels.

Primary stress appears at least once in every utterance; secondary stress occurs on every vowel that is not primarily stressed.

In order to describe the stress patterns in an utterance, we divide suffixes and stems each into three 'stress' classes. We then describe stress occurrence in terms of these classes.

C. Stress Classes among Suffixes

Suffixes fall into one of three stress classes. The general characteristics of each is briefly stated under the appropriate heading. The numbers refer to the morpheme classes listed in the Appendix.

1. Primary Suffixes

Characteristically, a primary suffix appears with primary stress whenever it appears in an utterance. When more than one of these suffixes occur in a single utterance, only the last one is primarily stressed.

9.7	-mex 'usitative: using an instrument'
9.8	-moł 'habitual: often, frequent'
9.12	-non 'manage to, finally succeed in'
9.15	-lwes 'repetitive: keep trying or doing'
10.2	-ep 'bottom of something, opening at bottom, doorway, mouth'
10.3	-en 'body'
10.4	-emn 'one who indulges in. . .'
10.5	-et 'abundant'
10.6	-en 'round object'
10.7	-ena 'small object, ear'
10.8	-enk 'belly, bellylike'
10.10	-eł 'sheltered'
10.14	-elp 'bereaved person'
10.16	-els 'heart; feel like (doing)'
10.17	-eca '(removed) body covering, hair, hide'
10.20	-ex^W 'mouth'
10.21	-ewt 'side by side'
10.22	-ews 'surrounded: middle, together'
10.25	-ekn 'ridge, back'
10.29	-ap 'weather, time'
10.30	-ap 'bottom of something: base, foot'
10.32	-an 'place'
10.34	-ałq 'bush or tree fruit'
10.35	-al 'living creature'
10.37	-alq^W 'log'
10.43	-ax^{W}c 'chest'
10.47	-aqs 'long member of a group or set'
10.51	-olawx 'land, earth, country'
10.52	-os 'fire, eye, face'
10.55	-pasxn 'upper arm'
10.57	-mex^W 'tribesman'
10.65	-ne 'dead person'
10.73	-cot 'self'
10.75	-semx^W 'cow's udder or teat'
10.77	-sqaxa 'horse'
10.81	-wea 'small animal'
10.82	-wewx 'face to face, together'
10.85	-xos 'face, neck'
10.91	-IP 'incomplete process'
11.4	-welx 'become'

2. Variable Suffixes

When occurring with a primary suffix and/or a Class A stem morpheme, a Variable Suffix lacks primary stress. Otherwise primary stress is present. But when more than one appear in a single utterance, only the last is primarily stressed.

Type A

When a Type A morpheme appears without primary stress, the vowel is also lacking.

9.1 -ep 'subject passively involved'
9.2 -est 'act deliberately, consciously; causative'
9.3 -elx 'requiring physical exertion'
9.4 -ak 'suffering, enduring'
9.5 -ot 'in position, condition'
10.9 -enk '(source of) power, strength; weapon'
10.11 -eɬ 'inside surface: mouth, food'
10.12 -eɬp 'tree, bush, rib'
10.13 -el 'even surface'
10.15 -elt 'property, offspring'
10.19 -ek^{W} 'water'
10.23 -ews 'top, high, place'
10.24 -ek 'somatic'
10.26 -eks 'finger, hand, arm'
10.31 -ap 'body, mass'
10.33 -an 'locative'
10.36 -alx^{W} 'outer covering, hide'
10.38 -alq^{W} 'legs'
10.39 -alqs 'clothes'
10.40 -asq't 'day, sky, weather'
10.41 -ax^{W} 'meat'
10.45 -aq^{W} 'plant, tree'
10.48 -aqs 'nose, point'
10.49 -ops 'posterior region, tail'
10.50 -om 'body'
10.53 -os 'body'
10.56 -men 'instrument'
10.60 -ten 'season, month'
10.66 -ɬak 'plant, bush'
10.71 -cen 'edge, opening, mouth, language'
10.72 -cen 'time, weather'
10.74 -sax 'flat surface'
10.84 -x̣an 'foot, leg'
10.89 -qen 'head'
12.1 -am 'indefinite object'
12.6 -tep 'ye subject'
12.7 -tem '3 person subject'
12.8 -tem '3 person object'
12.9 -tem 'we'

12.10	-ten	'I'
12.11	-tek^W	'thou imperative, transitive customary'
12.12	-tek^{W}e	'ye imperative, transitive customary'
12.13	-tex^W	'thou'
12.14	-tom	'2 person object'
12.17	-ƛolm	'ye object'
12.19	-ce	'thee'

Type B

When a Type B morpheme appears with a primary suffix and/or a Class A stem morpheme, it is secondarily stressed.

10.1	-ea	'outside'
10.18	-es	'tooth'
10.42	-ax^W	'ground level'
10.43	-axn	'arm, wing'
10.45	-aqn	'head'
10.53	-ost	'(surface of) round object'
10.90	-aD	'diminutive'

3. Invariable Suffixes

These suffixes are invariable as far as accompanying stress is concerned. Their vowels, when present, occur only with secondary stress.

9.6	-m	'causative'
9.9	-t	'moving along'
9.10	-t	'capable of producing'
9.11	-n	'attempted act'
9.13	-ƛt	'dative: to, to deprivation of; for, for benefit of'
9.14	-l	'illative'
9.16	-s	'artificially, unnaturally'
9.17	-x	'acting habitually or characteristically; habitual state'
9.18	-xt	'dative; indirect object'
9.19	-q	'describing a curve'
10.27	-a	'person'
10.28	-a	'little'
10.58	-t	'integral or natural characteristic, lasting feature'
10.59	-t	'(human) physical condition, often temporary'
10.61	-tn	'nominalizer'
10.62	-tk	'time, permanence'
10.63	-tx	'young person; sibling'
10.64	-n	'nominalizer'
10.67	-lps	'horse's mane'
10.68	-lqs	'crescent-shaped place: bottom, bay'
10.69	-c'a	'game animal'
10.70	-ca	'brother'
10.76	-stx̣n	'leg'
10.78	-x^W	'hide, hide-bearing, person'
10.79	-x^W	'house'

10.80	-x^{W}lx	'general fish'
10.83	-x	'body, person'
10.86	-xn	'long'
10.87	-ya	'salmon'
10.88	-q^{W}l	'mouth'
10.92	-CP	'completed process'
11.1	-ax	'future'
11.2	-n	'completive aspect'
11.3	-s	'customary aspect'
11.5	-x	'non-future'
12.2	-mp	'ye subject, your'
12.3	-t	'we'
12.4	-t	'thou imperative'
12.5	-te	'ye imperative'
12.15	-tt	'we, our'
12.16	-n	'I'
12.18	-lx	'3 person pluralizer'
12.20	-s	'3 person subject/possessive'
12.21	-s	'3 person subject'
12.22	-we	'ye imperative'
12.23	-x	'thou imperative'

D. Stress Classes among Stem Morphemes

Stem morphemes fall into one of three stress classes. The general characteristics of each class is briefly stated under the appropriate heading.

1. Class A Morphemes

These morphemes lose their primary stress when occurring with a primary suffix. When occurring alone or with other suffixes, they appear with primary stress.

p'ec	'squeeze, pinch'
pec	'fibrous material'
pel	'enter' (plural)
pel	'break'
pex̣	'hunt'
pac	'leaf'
pas	'think'
pon	'juniper'
men	'rub'
t'aq$^{W'}$	'lie down'
tał	'waterproof'
tem	'stuff, where withall'
tek^{W}	'spark'
tew	'young'
tam	'cover, watch over'
taq	'wave, move hand'
tom	'suck, woman's mother'
nek'	'cut'
naq$^{W'}$	'steal'
lax̣	'friend'
c'ał	'cold'
c'aq$^{W'}$	'point'
cel	'five'
sel	'one is big'
sax^{W}	'move down'
k^{W}en	'grab, take'

kʷel	'cream colour, heat'
xʷep	'spread'
xʷel	'move away'
xʷan	'red'
wek	'see'
k'et	'lose from misfortune'
k'ol	'work, make, do'
kel	'grasp at'
kec	'come'
xet	'run'
xel	'do'
x̣am	'like, love, want'
xoy	'go'
xoy	'ice'
yar	'string together'
qʷ'ay	'black'
qʷ'eʔ	'grow, plant'
qʷel	'mouth'
qʷam	'be oblivious'
q'et	'rain'
q'el	'be sick, lie down'
qel	'person, Indian'
qec	'run'
ʔem	'sit'
ʔay	'tie, consolidate'
ʔop'	'hook'
ʕac'	'look at'
ʕay	'mouth region, throat'

2. Class B Morphemes

These morphemes are usually secondarily stressed when occurring with a primary and/or a variable suffix. When occurring alone or with other suffixes, they appear with primary stress.

peq	'white'
poʔ	'beat, go bump'
mel	'round body'
mot	'sit'
t'ap	'aim at, shoot'
t'ox	'fly'
tak	'walk'
ta	'strike at'
ƛ'ax	'big'
ƛ'aʔ	'seek, fetch'
łex	'hollow, dig'
laʕ	'surfaces approach'
c'oʔ	'burn'
caq'	'throw, hit'
xʷaʔ	'abundance'
xʷaʔ	'grab'
x̣al	'daylight'
xot	'down'
qʷ'oł	'dark brown'
qʷan	'pity'
qʷas	'engender'
q'eʔ	'mark, write'
q'am	'swallow'
ʔetx	'sleep'
ʔop	'hair'
ʔokʷ	'crawl' (singular)
ʕac	'tie up'
ʕaxʷ	'(barbed) wire'
ʕax	'stripe'

3. Class C Morphemes

These morphemes are usually minimally stressed when occurring with a primary and/or a variable suffix. Those listed without a vowel appear only in this environment. Those listed with a vowel bear primary stress when occurring alone or with an invariable suffix.

pək 'seed, wood'
pt 'spit'
pn 'liver'
pl 'beat, kill, break'
pl 'grow'
ps 'lie flat on'
pr 'bend'
meq^{w} 'snow'
mos 'four'
mɬk' 'blood'
ml 'dung'
mg 'fasten'
t'e? 'lie in position'
t'aq^{w} 'cry out'
t'ol 'change'
tk 'prop up'
new 'red'
naqs 'one'
ƛ'al 'die'
ɬap' 'mark'
ɬak^{w}' 'pierce'
ɬax̣^{w} 'hole'
ɬaw 'stab'
ɬak 'bush'
ɬoq' 'lie down'
lak' 'tie up, bind'
lg 'sting'
c'al 'be upright, stand, seed'
cq 'outside, be in position'
cak^{w} 'pull'
sel 'lose'
war 'fire, burn'
x^{w}e? 'move along'
k'as 'bad'
k'm 'body'
kom 'hold several'
x̣aw 'dry'
xot 'down'
xc 'bet'
x̣as 'good'
q'a? 'protect, cover'

E. Distribution of Primary Stress

Summary of Rules

Abbreviations

St	Stem
a	Class A
b	Class B
c	Class C
R	Root Morpheme
Red	Reduplication
DV	Diminutive
IT	Iteration
IP	Incomplete Process
aD	Diminutive Suffix
Sf	Suffix
Pr	Primary Suffix
Vr	Variable Suffix
In	Invariable Suffix

Subscripts

C	Consonant
V	Vowel
?	Glottal Stop

The only stress accounted for here is primary, marked with ´.

1. Single Morpheme Stems

a. $\text{St} + \text{In} \dashrightarrow \text{S}\acute{\text{t}}\text{In}$

b. $\text{St} + \text{Pr} + \text{Pr} \dashrightarrow \text{StPrP}\acute{\text{r}}$

$\text{St} + \text{Pr} + \text{IP} \dashrightarrow \text{StP}\acute{\text{r}}\text{I}\acute{\text{P}}$

c. $\text{Sta} + \text{Vr/In} \dashrightarrow \text{S}\acute{\text{t}}\text{aVr/In}$

d. $\text{Stb}^{ʔ}$ + $_{V}$Pr/$_{V}$Vr --> St́b $_{V}$Pr/$_{V}$Vŕ

e. $\text{Stb}^{ʔ}$ + $_{V}$Vr + Vr --> $\text{Stb}^{ʔ}$ $_{V}$VŕVr

Stb/c + Vr + Vr --> Stb/cVrVŕ, except under previously noted condition.

f. Stc + $_{V}$Vr/$_{V}$Pr --> Stć $_{V}$Vŕ/$_{V}$Pŕ, when Stc has base form CVw, CVy.

Stc + Vr/Pr --> StcVŕ/Pŕ, except under previously noted condition.

2. Compound Morpheme Stems

A. Chameleon(s) plus One Root

a. DV + R --> DV́R

b. IT + Rc_{VCV} --> IT́Rc

c. R + IP --> ŔIṔ

d. Rc + CP --> RcCṔ

e. DV + R + Pr/aD --> DV́RPr/aD

f. IT + Rc_{CVC} + Vr --> IT́RcVr

B. More than One Root

a. (Red +) R + $\text{R}_{C_1VC_2}$ --> (Red)R$\acute{\text{R}}_{C_1VC_2}$, when C_2 is other than ʔ.

b. (Red +) Red + R --> (Red)RedŔ

c. R + R + Pr --> RRPŕ

d. Red + Rc + Pr --> RedRcPŕ

e. Red + Rc + Vr --> RedRcVŕ

An allomorph without ´ or ` has no vowel phoneme.

Explanation and Illustration of the Rules

1. Single Morpheme Stems

Without suffixation, primary stress occurs on the stem. With affixation, location of primary stress varies as follows.

a. Primary stress occurs on the stem when only invariable suffixes follow the stem.

b. Primary stress occurs on the last or only primary suffix present.

x̣al + ap (daylight - time) --> /x̣àláp/ 'tomorrow'

But when the last primary suffix is the -IP 'incomplete process' morpheme, primary stress occurs twice: once on the process morpheme

and once on the suffix preceding it. Two syllable peaks are heard here.

k + ʔem + t + en + an + IP (location at - sit - physical condition - round object - place - incomplete process) --> /k'àmtènáán/ 'I am sitting on him'

c. In the absence of primary suffixes, primary stress falls on the stem, if the stem morpheme is a Class A morpheme.

kn + pex̣ + am (I - hunt - indefinite object) --> /knpéx̣m/ 'I hunted something'

d. Primary stress occurs twice, once on the stem and once on the suffix, when a Class B stem morpheme, with final ʔ in its base form, is immediately followed by a primary or variable suffix having an initial vowel. Two syllable peaks are heard here.

kn + λ'aʔ + am (I - seek - indefinite object) --> /knƛ'áám/ 'I looked for something'

e. In the absence of primary suffixes, primary stress falls on the first variable suffix under Condition (1) below, and on the last variable suffix under Condition (2) below.

Condition (1): Class B stem with final ʔ in its base form plus a variable suffix with initial vowel.

kn + λ'aʔ + os + am (I - seek - body - indefinite object) --> /knƛ'óósm/ 'I looked around for it'

Condition (2): Class B or C stem with variable suffixes.

n + k'm + enk + eks + t (on - body (C) - strength - hand - lasting feature) --> /nk'mnkékst/ 'palm of the hand'

f. Primary stress occurs twice when a Class C stem precedes a vowel initial variable or primary suffix when the base form of the stem

ends with w or y.

kn + ław ± eks + t (I - stab - hand - lasting feature) --->

/knłóékst/ 'I had a splinter in my hand'

ks + way + asq't + ax (intentional - finish - weather - future)

---> /kswéásq'tàx/ 'it is going to stop raining'

Otherwise with a Class C stem, primary stress occurs on the variable or primary suffix only.

t'aq^{W} + cen (cry out - mouth) ---> /tq^{W}cén/ 'someone shouted'.

2. Compound Morpheme Stems

A. Chameleon Morpheme(s) with One Root Morpheme

Without suffixation, primary stress occurs on the chameleon morpheme under the following conditions; otherwise it falls on the root morpheme.

a. Primary stress occurs on the DV- 'diminutive' morpheme.

DV + new + t (diminutive - blow - natural characteristic) --->

/nénòt/ 'wind'

b. Primary stress occurs on the IT- 'iterative' morpheme when it precedes a Class C morpheme with base form CVC.

ke + IT + mos (person - iterative - four) ---> /kèmósms/ 'four people'

c. Primary stress occurs both on the root morpheme and on the -IP 'incomplete process' morpheme. Two syllable peaks are heard.

t'ol + IP (change - incomplete process) ---> /t'óól/ 'it is improving'

d. Primary stress occurs on the -CP 'completed process' morpheme when it follows a Class C morpheme.

x̣aw + CP (dry - completed process) ---> /x̣wáw/ 'it dried'

With suffixation, primary stress occurrence is the same as that noted for single morpheme stems above, with two modifications.

e. When the DV- 'diminutive' morpheme occurs in an utterance that also has a primary and/or an -aD 'diminutive' suffix, the primary stress occurs on the root morpheme.

n + DV + ɬex + olawx (in - diminutive - dig - ground) --->

/nɬàɬéxòlàwx/ 'he dug fence holes'

f. When the IT- 'iterative' morpheme precedes a Class C morpheme having a canonical form CVC, primary stress occurs on the iterative morpheme even when a variable suffix is present.

IT + nax^{W} (iterative - copulate) --->/náx^{W}nx^{W}/ 'wife'

c + IT + k^{W}es + tek^{W} (durative - iterative - hold - thou, imperative) ---> /ck^{W}ésk^{W}sk^{W}/ 'hold it!'

There are no examples of such a combination appearing with a primary suffix.

B. More than One Root

In compound stems, primary stress very frequently appears on the last vowel phoneme that has a following consonant phoneme. Morphologically, primary stress falls on the last primary suffix when one is present; otherwise it falls on the last root morpheme realized as CVC.

Sometimes a morpheme listed as a suffix in the Appendix is encorporated into the stem. Such a combination functions as a Class A root. The suffixal allomorph that is realized in the stem depends on the

accompanying root morpheme, and is derived by the same rules that operate when the morpheme in question functions as a suffix. For example -men 'instrument' is primarily stressed after a single Class B morpheme like q^{W}an 'pity': snq^{W}anmen 'pity'. When encorporated into a stem with q^{W}an, men is still primarily stressed, and remains so when followed by a variable suffix, like -ce 'thee'.

n + q^{W}an + men + n + ce + n (on - pity - instrument - completive aspect - thee - I) --> /nq^{W}ànménen/ 'I pitied you'.

Rules

a. (Red +)R + R$_{C_1VC_2}$ --> (Red)RŔ$_{C_1VC_2}$, when C_2 is other than ʔ.

c'oʔ + war (burn (B) - burn (C)) --> /c'wár/ 'outside fire'

ceq' + D + ƛax̣^{W} (dig (A) - diminutive - hole (C)) --> /cq'lƛáx̣^{W}/ 'small hole'

n + ʔeƛn + ʔeƛn + qel + x^W + tn (in - eat (A) - eat (A) - person (A) - person - nominalizer) --> /nàƛnàƛnqélx^{W}tn/ 'maneating monster'

sel + x^{W}aʔ (one is big (A) - abundance (B)) --> /sélx^{W}à/ 'he is big'

b. (Red +)Red + R --> (Red)RedŔ

ƛax̣^{W} + ƛax̣^{W} (wild cherry (C) - wild cherry (C)) --> /ƛx̣^{W}ƛáx̣^{W}/ 'wild cherry'

t'aq^W + t'aq^W + t'aq^W + s + lx (cry out (C) - cry out (C) - cry out (C) - 3 person subject - 3 person pluralizer) --> /tq^{W}tq^{W}t'áq^{W}slx/ 'they kept crying out'

c. R + R + Pr --> RRPŕ

ceq' + ƛax̣^{W} + enk (dig (A) - hole (C) - bellylike) --> /cq'ƛx̣^{W}énk/

'cave'

d. Red + Rc + Pr ---> RedRcPŕ

k + ƛap' + ƛap' + aqs + stx̣n (movement at - mark (C) - mark (C) - long member of set - leg) ---> /kƛp'ƛp'áqstx̣n/ 'RCMP constable'.

e. Red + Rc + Vr ---> RedRcVŕ

ƛax̣ʷ + ƛax̣ʷ + ton (wild cherry (C) - wild cherry (C) - season) ---> /ƛx̣ʷƛx̣ʷtén/ 'July'.

Three forms not covered by the above stress rules are /sò-yá-pèq/ 'whiteman', /yà-yá-t-s-tèm/ 'everything' and /lót-s-tèm/ 'nothing'. The first is probably a borrowing (see footnote 18, page 289). The other two contrast semantically and have a stress pattern that emphasizes the phonetic difference (cf. the American football terms: offence, defence).

The environments conditioning consonantal and vocalic loss are presented in the section that follow the discussion of chameleon morphemes.

F. Distribution of Secondary Stress

Summary of Rules

The only stress accounted for here is secondary, marked with ̀ .

1. Root Morphemes

   a. $_{ʔ}$Ra/b + Pr ---> $_{ʔ}$R̀a/bPr.

   b. IT + Rc ---> ITR̀c.

   c. i. $_{\text{initial or final ʔ/ʕ/x}}$Ra + Pr ---> R̀aPr.

      ii. Dʔ + Ra + Pr ---> DʔR̀aPr.

   d. i. Rbʔ + $_{C}$Pr/$_{C}$Vr ---> R̀bʔ$_{C}$Pr/$_{C}$Vr.

      ii. R$_{CVC}$ + Rbʔ ---> R$_{CVC}$R̀bʔ.

iii. $\text{Rb}_{\text{not}\,?}$ + Pr/Vr ---> R̀bPr/Vr.

iv. DV + Rb ---> DVR̀b.

e. Rc_{CVC} + Rc_{CC} ---> R̀cRc/ — ` ´.

2. Chameleon Morphemes

a. DV + R + Pr/aD ---> DV̀RPr/aD.

b. IT + $\text{R}_{\text{initial or final}\,ʔ/ʕ/x/w/y}$ ---> IT̀R.

c. Ia + R (+ Sf) ---> IàR(Sf).

d. R + IP + Sf́ ---> RÌPSf́.

e. St + Sf + aD ---> StSfàD.

3. Primary Suffixes

a. St + Pr + Pr ---> StPr̀Pr.

b. St + Pr_{VCV} ---> $\text{StPr}_{\text{VC}\grave{\text{V}}}$

c. DV + R + Pr ---> DVRPr̀.

An allomorph without ´ or ` has no vowel phoneme.

While primary stress is present in every utterance, secondary stress is not. The former is restricted to a maximum of two occurrences in a single utterance; no such restriction appears with the latter.

Secondary stress occurs on all those prefixes and invariable suffixes listed with a vowel in their base form in the Appendix. The final vowel of talé- 'very', mentioned already, is excluded. There are some environments, listed under Vowel Loss, where a few of these morphemes occur with minimal stress.

Root morphemes and primary and variable suffixes occur with primary stress under the conditions listed in the previous section. In other environments, primary stress is lacking, being replaced with

secondary and minimal stress.

Minimal stress occurs in those environments where vowel loss occurs; they are listed under Vowel Loss. Secondary stress occurs in the environments that follow.

1. Root Morpheme

A root morpheme appears with secondary stress under the following conditions.

a. It is a Class A root with initial ˀ in its base form, or a Class B root; and it precedes a primarily stressed stem morpheme.

n + ˀełn + ˀełn + qel + x^W + tn (in - eat (A) - eat (A) - person (A) - person - nominalizer) ---> /nàłnàłnqélx^Wtn/ 'maneating monster'

b. It is a Class C root with final ˀ in its base form and follows an IT- 'iterative' morpheme.

s + D + IT + kaˀ (nominalizer - diminutive - iterative - squawk) ---> /skkákà/ 'bird'

c. It is a Class A root co-occurring with a primary suffix in the following environment.

i. It has a base form with ˀ/ˁ/x.

k + ˀem + t + en + an + IP (location at - sit - physical condition - round object - place - incomplete process) ---> /k'àmtènáán/ 'I am sitting on him'

ii. It follows Dˀ- 'diminutive'

D + Dˀ + pac + ek + eł + ten + aD (diminutive - diminutive - leaf - somatic - inside surface - season - diminutive) ---> /pp'èckłtán/ 'April'

d. It is a Class B root occurring in these environments.

i. The final consonant in its base form is ʔ, and at the same time it precedes a primary or variable suffix with an initial consonant in its base form.

ƛ'aʔ + n + ten (seek - completive aspect - I) ---> /ƛ'àʔntén/ 'I looked for it'

ii. The final consonant in its base form is ʔ and at the same time it is the final morpheme in an utterance that includes another stem morpheme having a vowel in its base form.

sél + xʷaʔ (one is big - abundance) ---> /sélxʷà/ 'he is big'

iii. The final consonant in its base form is other than ʔ and at the same time it precedes a primary or variable suffix.

t'ap + am + s (fire at - indefinite object - 3 person subject) ---> /t'àpáms/ 'he fired at something'

iv. It follows a DV 'diminutive' morpheme.

ka + c + DV + wex (location - near - diminutive - camp) ---> /kàcwéwàx/ 'she camped'

e. It is a combination of Class C roots, CVC + CC, preceding a stress pattern of secondary plus primary.

t + k'as + pl + an + cot + n (location - bad - grow - place - self - nominalizer) ---> /tk'èsplàncótn/ 'temptation'

2. Chameleon Morphemes

Secondary stress accompanies a chameleon morpheme of the following type.

a. A DV- 'diminutive' morpheme that occurs with a primary suffix, or with an -aD 'diminutive' suffix.

n + DV + ƛex + olawx (in - diminutive - dig - ground) -->
/nƛàƛéxòlàwx/ 'he dug fence holes'

b. An IT- 'iterative' morpheme that precedes a root morpheme with the consonant ʔ/ʕ/x/w/y.

IT + xac' + t (iterative - strange - integral characteristic)
-->/xàc'xác't/ 'it is strange'

IT + lew + elx (iterative - bell - physical exertion) -->
/lòléwlx/ 'bell'

IT + x^{W}ay + t (iterative - sharp - integral characteristic) -->
/x^{W}èx^{W}áyt/ 'it is sharp'

c. An Ia- 'iterative' morpheme.

sc + Ia + t'ox + t + x (continuative aspect - iterative - fly - moving along - non-future) --> /sct'àt'óxtx/ 'it (bird) is flying around'

d. An -IP 'incomplete process' morpheme that precedes a primarily stressed suffix.

c'oʔ + IP + ek + eks + t (burn - incomplete process - suffering - hand - lasting feature) --> /c'òòkékst/ 'he is burning his hand'

e. An -aD 'diminutive' suffix that follows a variable suffix. When two vowels are present in this latter morpheme, the second is always secondarily stressed.

D + t'aq' + ops + aD (diminutive - short - tail - diminutive)
--> /ttq'ópàs/ 'short tail'

3. Primary Suffixes

Secondary stress accompanies a primary suffix in the following environments.

a. When it immediately precedes another primary suffix.

t + k'as + pl + an + cot + tn (location - bad - grow - place (Pr) - self (Pr) - nominalizer) --> /tk'èsplàncótn/ 'temptation'

b. When it has a second vowel in its base form. This second vowel, a, bears secondary stress.

The following statements apply to base forms of morphemes after primary and secondary stress have been located for the utterance in question. Stress is marked when utterances are written between slants. Base forms are left unmarked. Otherwise, the abbreviated procedure described on page 66 is followed.

II. Chameleon Morpheme Patterns

Chameleon morphemes in general differ from other morphemes by virtue of a far wider range of allomorphic variation. The variants are often constituted of phonemes reduplicated from an accompanying morpheme, and typically lack the characteristic C(V)C form of other stem morphemes. Discontinuous root and suffix allomorphs occur only in the presence of a chameleon morpheme.

Because of their distinct allomorphic patterns, chameleon morphemes are now separately discussed from other morphemes. The seven below have the following syntactic relation to the root. A, B, D and E precede the root; C and F are infixed; G is suffixed. The symbols C and V in this section relate to phonemes in the base forms of adjoining root morphemes.

A. D- 'diminutive' (Syntactic order: D + Root)

D : t /— ƛ',

: C_1 unglottalized /— R, when R = unstressed root with final voiceless consonant. Rule applicable only to older speakers.

: C_1 elsewhere.

D + ƛ'ax̣ + t + aD (diminutive - big - condition - diminutive) --->
/tƛ'áx̣àt/ 'a little louder'

D + t'aq' + ops (diminutive - short - tail) ---> /ttq'óps/ 'short tail'

D + ˁax (diminutive - be striped) ---> /ˁˁáx/ 'it has tiny furrows'

B. DV- 'diminutive' (Syntactic order: DV + Root)

DV : C_1e /— (X)m/w,[15]

: C_1a /— ´, or /— qe base,

: C_1V elsewhere.

DV + sam + a (diminutive - white person - person) ---> /sésmà/ 'white child'

DV + qec + elx (diminutive - run - physical exertion) ---> /qáqelx/ 'he trotted'

ke + DV + naqs (person - diminutive - one) ---> /kènánqs/ 'one human baby'

C. Dʔ- 'diminutive' (An infix, preceding the root V)

D : ∅, when root C_1 = w. This w is now realized as /o/.

: ʔ elsewhere.

s + Dʔ + weʔ + n + om + tx + aD (nominalizer - diminutive - mature person - attempted act - body - young person - diminutive) ---> /sòènómtàx/ 'adolescent boy'

s + Dʔ + nem + t + aD (nominalizer - diminutive - child - integral characteristic - diminutive) ---> /snʔémàt/ 'grandchild'.

D. IT- 'iterative' (Syntactic order: IT + Root)

IT : C_1VC_2, with the following variations.

1. C ---> ∅, when corresponding root C = ʔ.

2. Optional. Glottalized C_1 becomes unglottalized before an unstressed root with voiceless C_2. This glottalization, always audible in younger speakers, is extremely indistinct or absent in older speakers.

3. V ---> ∅ / __ Ra/b, when root C is other than a back consonant: ʔ, ˤ, x, x̣, h.

4. V ---> a, when root C is a back consonant (see 3 above) and when root V = e.

In the absence of ʔ in the root, other variations are:

5. C ---> o, when corresponding root C = w.

6. C ---> e, when corresponding root C = y.

IT + xac' + t (iterative - strange - integral characteristic) ---> /xàc'xác't/ 'it is strange'

IT + yaʔ + t (iterative - all - integral characteristic) ---> /yàyát/ 'all'

s + IT + k'et + x̣an (customary - iterative - lose in accident - leg) ---> /sktk'étx̣n/ 'he lost both legs'

ko + ks + IT + ʔełn + ax (we - intentional - iterative - eat - future) ---> /kòksàłʔéłnàx/ 'we are going to eat'

IT + pex̣ + mołn (iterative - hunt - often) ---> /pàx̣pàx̣mół/ 'he often hunts'

kn + IT + wes + elx (I - iterative - high - physical exertion) ---> /knòswéslx/ 'I am jumping along'

IT + lew + elx (iterative - bell - physical exertion) ---> /lòléwlx/ 'bell'

IT + x^{W}ay + t (iterative - sharp - integral characteristic) ---> /x^{W}èx^{W}áyt/ 'it is sharp'

IT + sey + os (iterative - be ambitious - body) ---> /sèsèyós/ 'he works well'.

E. Ia- 'iterative' (Syntactic order: Ia (+D?) + Root)

Ia : C_1a.

Ia + la^{ʕ} + an + t (iterative - surfaces approach - locative - thou imperative) ---> /làlà^{ʕ}ánt/ 'put them (mocassins) on!'

Ia + D? + nek' + ews + n (iterative - diminutive - cut - place - nominalizer) ---> /nàn$^{?}$ék'òsn/ 'carpenter's saw'

Ia + D? + top + a (iterative - diminutive - grand relative - person) ---> /tàt'ópà/ 'greatgrandchild'

s + Ia + pek (customary - iterative - board) ---> /spàpék/ 'it (chair) is entirely made of wood'

ko + Ia + t'ap + n + tem (us - iterative - aim at - completive aspect - 3 person subject) ---> /kòt'àt'àpntém/ 'he kept shooting at us'

ko + Ia + ɬat + IP (we - iterative - wet - incomplete process) ---> /kòɬàɬáát/ 'we got wet'

Ia + t'ox + t (iterative - fly - moving along) ---> /t'àtóxt/ 'it

(bird) flew around'.

F. IP 'incomplete process' (An infix, adjoining the root V)

IP : V.

t'ol + IP (change - incomplete process) --> /t'óól/ 'it is improving'.

Note that root C_2 --> $\emptyset$ in this construction, when C_2 = ʔ in the base morpheme.

c'oʔ + IP + ak + eks + t (burn - incomplete process - suffering - hand - physical feature) --> /còòkékst/ 'he is burning his hands'.

G. -CP 'completed process' (Syntactic order: Root + CP)

CP : VC_2, with the following variations.

1. V --> a / Rc —, when root VC_2 = eq^W,

2. $$V \dashrightarrow \emptyset \;/\; \begin{cases} Ra/b\ \text{—}, \\ Rc\ \text{—, where root base form} = C_1C_2 \text{ or } C_1Vy, \\ \text{—}'\ \text{in next morpheme} \end{cases}$$

3. C_2 --> e / — y, when y = C_2 of Rc.

x̣aw + CP (dry - completed process) --> /x̣wáw/ 'it dried up'

meq^W + CP (snow - completed process) --> /mq^{W}áq^W/ 'it is snowing'

ko + k^{W}el + CP (we - locate (A) - completed process) --> /kòk^{W}éll/ 'we sat down'

ʕax + CP + alqs (be striped (B) - completed process - clothes) --> /ʕàxxálqs/ 'striped clothes'

x^{W}r + CP + ap + CP (be frayed (C) - completed process - body - completed process) --> /x^{W}rrápp̣/ 'he is anxious'

n + x̣aw + CP + eł + q^{W}l + t (in - dry - completed process - inside surface - mouth - lasting feature) --> /nxwwáłq^{W}lt/ 'his mouth is dry'

way + CP + cen (finish (C) - completed process - mouth) --> /wèècén/ 'he finished eating'.

Chameleon Suffixes

The following three morphemes are closely associated with nominal-locative suffixes (Class 10): that is, they are infixed and/or have constituent phonemes reduplicated from the associated morpheme. The symbols C and V now refer to the base forms of nominal-locative suffixes. The rules apply after stress has been located.

H. aD 'diminutive'

aD : a.

This morpheme precedes the last or only consonant of a Class 10 suffix.

D + t'aq' + ops + aD (diminutive - short - tail (Class 10) - diminutive) --> /ttq'ópàs/ 'little short tail'

D + kag + t + aD (diminutive - thin - physical condition (Class 10) - diminutive) --> /kkágàt/ 'thin'

n + Ɨa + q^{W}ay + eca + aD (on - iterative - green - outer covering (Class 10) - diminutive) --> /nq^{W}àq^{W}àyácà/ 'first green salmon' (See Rule 7, p.334)

D + Dʔ + pac + ək + eł + ten + aD (diminutive - diminutive - leaf - somatic - inside surface - season - diminutive) --> /op'èckłtán/ 'April'

D + sak + os + aD (diminutive - narrow - body - diminutive) --> /ssákàs/ 'it is narrow'.

I. IP 'incomplete process' (An infix, adjoining the suffix V)

IP : V.

k' + ʔem + ot + en + an + IP + n + ten (movement at - sit - in position - round object - place (Class 10) - incomplete process - completive aspect - I) ---> /k'àmtènáán/ 'I am sitting on him'.

J. -CP 'completed process' (Syntactic order: Suffix + CP)

CP : C_2.

x^Wr + CP + ap + CP (be frayed (root) - completed process - body (nominal suffix) - completed process) ---> /x^Wrrápp/ 'he is anxious'.

III. Consonant Patterns

The commonest morphophonemic process is phoneme loss. It is examined first among consonants. The rules apply to base forms after the stress rules have been applied.

A. Consonant Loss

1. $C_1 \dashrightarrow \emptyset \;/\; \_\_\; C_1$, where $C_1 = C_1$.

This rule does not apply to prefixes, to chameleon morphemes, to -x 'non-future', nor in the environment of -s 'he, his'. Elsewhere, it applies across a morpheme boundary.

2. $t \dashrightarrow \emptyset \;/\; \_\_\; c$.

This rule does not apply to prefixes, nor to IT- 'iterative'.

3. $te \dashrightarrow \emptyset \;/\; {}^{\prime} X \_\_$, when te is part of -ten 'I', -tek^W 'thou imperative, customary', -tek^{W}e 'ye imperative, customary'.

4. $n \dashrightarrow \emptyset \ / \left\{ \begin{array}{l} \text{Ra X \_\_ ten 'I'} \\ \text{'dative' \_\_} \end{array} \right\}$, where n = 'completive aspect'.

5. n/ł ---> ∅ / ___ s.

The only prefixes affected by this rule are pen- 'time', en- 'I, my', and an- 'thou, thy'. The rule does not apply to -n 'attempted act', nor in the environment of -s 'he, his'.

6. -łolm 'ye object' ---> łm / ´ X ___ .

7. Stem ʔ $\dashrightarrow \emptyset \ / \left\{ \begin{array}{l} \text{+ \_\_ ` ´} \\ \text{s + \_\_} \end{array} \right\}$.

8. Root ʔ ---> ∅ / ___ + C_{vl}.

9. Class B/C root ʔ ---> ∅ / ___ + (C)V́.

10. Class A root morpheme Ceʔ ---> C / ___ a/o.

Examples

1. k'ol + an + cot + tn (make - locative - self - nominalizer) --->
   /k'òlncótn/ 'Creator'

   c + ˤac' + est + s + s + lx (nearby - look at - act deliberately - customary aspect - 3 person - 3 person pluralizer) --->
   /cˤác'selx/ 'they watched him nearby'.

2. po + pl + est + cot (spouse - beat - causative - self) --->
   /pòplscót/ 'he beat his (own) wife'.

3. wek + n + ten (see (A) - completive aspect - I) ---> /wékn/ 'I saw him'

c + IT + k^{W}es + tek^{W} (durative - iterative - hold - thou imperative, customary) ---> /ck^{W}ésk^{W}sk^{W}/ 'hold it!'

ko + ce? + os + tek^{W}e (me - leave alone - body - ye imperative, customary) ---> /kòcé?sk^{W}è/ 'leave me alone!'

4. See example 3 above and 6 below.

con + ɬt + n + ce + t (tell - dative - completive aspect - thee - we) ---> /cóɬtct/ 'we shall tell it to you!'

5. en + s + lax̣ + t (my - nominalizer - friend - integral characteristic) ---> /eslax̣t/ 'my friend'

pen + s + meq^{W} + ten (time - nominalizer - snow - season) ---> /pèsméq^{W}tn/ 'December'[17]

s + q^{W}'e? + n + ɬak (nominalizer - grow - attempted act - plant) --->/sq^{W}'é?nɬk/ 'experimental crop'.

6. wek + n + ɬolm + n (see - completive aspect - ye object - I) ---> /wékɬmn/ 'I saw you'.

7. ke + ?asel (person - two) ---> /kàsél/ 'two people'

kn + ks + ?eɬn + ax (I - intentional - eat - future) ---> /knks?éɬnàx/ 'I am going to eat'

ko + n + ?eɬn + els (we - in - eat - heart) ---> /kònàɬnéls/ 'we wanted to eat'

?eɬn + x (eat - non-future) ---> /éɬnx/ 'someone ate'

s + ?ok^{W} + t (nominalizer - crawl - moving along) ---> /sók^{W}t/ 'crawling'.

8. IT + ya? + t (iterative - all - integral characteristic) ---> /yàyát/ 'everyone'

q'aʔ + x̣an (protect (B) - foot) ---> /q'àx̣án/ 'shoe'

caʔ + n + ten (punch (B) - completive aspect - I) ---> /càʔntén/ 'I punched him'

9. poʔ + men (beat (B) - instrument) ---> /pòmén/ 'drum'

s + poʔ + os (nominalizer - beat (B) - body) ---> /spóós/ 'heart'

t'eʔ + ɛna (lie in position (C) - small object) ---> /t'ɛ́nà/ 'ear'

10. sn + qʷ'eʔ + an + łak + tn (place for - grow - place - plant - nominalizer) ---> /snqʷ'ánłktn/ 'farm'

B. Base C'

1. Optional. C'_1 ---> C_1, when part of an unstressed root having voiceless C_2. This glottalization, always audible in younger speakers, is extremely indistinct or absent in older speakers.

2. Sporadic alternation.[18] C' ---> C, when part of t'e- 'location', k'a- 'movement to', k'ł- 'on, at', and k'l- 'into, towards'.

This loss of glottalization is more frequent when the morpheme is non-initial.

Examples

1. Red + Red + t'aqʷ + s + lx (reduplication - reduplication - cry out - 3 person - 3 person pluralizer) ---> /tqʷtqʷt'áqʷslx/ 'they kept screaming'

2. t'e + k'aw (location - be absent) ---> /tèk'áw/ 'nobody'

k'a + c + DV + wex (movement to - durative - diminutive - set upright) ---> /kàcwéwàx/ 'she lived in an old tent'

sn + k'ł + mot + n (place for - on - sit - nominalizer) --->
/snkłmótn/ 'bench'

e + k'l + tmh + olax^{W} (proclitic - towards - country - ground)
---> /èkltmhólàx^{W}/ 'to the country'.

C. Base w

1. Class C root wVC ---> oC / ___´, but not before a morpheme with p or initial m.

2. Class A root CVw ---> Co / ´ ___.

3. Class C root CVw ---> Coʔ / ___ C_{vd}X ´.

4. Class C root CVw ---> Co / ___ é.

5. Variable suffix VwC ---> oC / $\left\{ \begin{array}{c} ´ \text{ ___} \\ \text{___ } ´ \end{array} \right\}$. Primary stress is on the next morpheme which lacks -ʔ.

Examples

1. wah + am (bark - indefinite object) ---> /òhám/ 'it (dog) barked'
war + n + ten (burn - completive - I) ---> /òrntén/ 'I burned it'.
When this latter root appears in soréslp' 'stove fire', the rule is applicable. It is not applicable when the two above roots appear in the following constructions. /wàhwàhmół/ 'it (dog) is always barking', /wrmòtéà/ 'fire outdoors', /wrméxàx/ 'someone will light a fire', /swrép/ 'sting (on a wasp)'.

2. Dv + new + t (diminutive - blow - integral characteristic) --->
/nénòt/ 'breeze'

3. ko + ław + n + tes (me - stab - completive - he) --> /kòłò^{ʔ}ntés/

'he jabbed me'

4. kn + ław + eks + t (I - stab - hand - lasting feature) -->

/knłóékst/ 'I had a splinter in my hand'

The rule is not applicable with /x̣wáw/ 'it dried up'.

5. Ia + nek' + ews + n (iterative - cut - place - nominalizer) -->

/nànék'òsn/ 'carpenter's saw'

n + t'm + ews + os + n + ten (on - seize - top - face - completive - I) --> /nt'mòsósn/ 'I grabbed his hair from the front'.

D. Base y

1. Class C root yVC --> eC / —´, when the root is alone in the stem.

2. Class C root CVy --> Ce / —´, when no other root is present in the stem.

Examples

1. n + yax^{W} + et + ek^{W} (into - fall - abundant - water) -->

/nèx^{W}étk^{W}/ 'he fell into the water'

2. ks + way + asq't + ax (intentional - finish - weather - future) --> /kswéásq'tàx/ 'it is going to stop raining'

way + CP + cen (finish - completed process - mouth) -->

/wèècén/ 'he finished eating'.

E. -s '3 person subject/possessive'

-s '3 person subject/possessive' --> e / S —.

s + poʔ + os + s (nominalizer - beat - body - 3 person subject/ possessive) ---> /spóósc/ 'his heart'.

IV. Vowel Patterns

Morphemes are frequently represented with allomorphs lacking the vowel of the base form. This type of allomorphic variation is presented first. Then we consider vocalic alternation, each time in terms of the base form: e/o and a, e/a and o, a/o and e. In the latter cases the critical part of the total environment is not always well attested to.[19]

A. Vowel Loss

1. ła 'subordinate' ---> ł / — P, where P is any phoneme other than ł.

2. CV ---> C / — $_{\text{V/ʔ}}{}^{\text{R}}$, when CV = ke- 'person' or a Class 1 emphatic with CV base form.

3. Root Ceʔ ---> C / — X ́.

4. Class C root wVC ---> oC / — ́, but not before an m- initial morpheme.

5. Class C root Coʔ ---> C / — P ́, where P = w/ʔ.

6. Variable suffix V ---> ∅ / $\begin{Bmatrix} \text{—}\grave{} \\ \grave{}\text{—} \end{Bmatrix}$.
Not applicable when the vowel directly follows a Class A/B root with final ʔ, e.g. /ƛ'áám/ 'he looked for something', where ƛ'aʔ (B) = 'seek'.

7. Suffix V ---> ∅ / — aD, when V precedes the last or only consonant of the base morpheme.

Rules 8-10 deal with vowel loss in CVC roots. But when ʔ/ʕ/x/x̣ are present in the base forms of Class A/B roots, the rules do not apply.

8. Root $C_1VC_2 \dashrightarrow C_1C_2$, before that same morpheme.

9. Class A root $C_1VC_2 \dashrightarrow C_1C_2 \ / \left\{\begin{matrix} \text{either DV } \_\_ \\ \text{or} \quad \_\_\,' \end{matrix}\right\}$, when -IP 'incomplete process' is absent.

10. Class C root $C_1VC_2 \dashrightarrow C_1C_2 \ / \left\{\begin{matrix} \text{either } '\_\_ \\ \text{or} \quad \_\_\,'(\grave{}) \end{matrix}\right\}$, when C_1 is other than w.

Exceptions to rules 9 and 10: meƛ' 'paint', k^Wen 'take, hold one', kom 'take, hold several', k'ol 'make, do', when accompanied by a prefix and/or a noncontiguous primary suffix having a vowel identical with the root vowel. Compare the phonemic shape of the morpheme kom in the following utterances.

/kłkmkmx̣ntén/ 'I grabbed both his legs'

/snkòmèlscótn/ 'pocket'.

Examples

1. km + ła + c + kec + x (I - subordinate - hither - come - non-future) --→ /knłckécx/ 'when I came'

2. ke + ʔasel + am (person - two - indefinite object) --→ /kàsélm/ 'two people'

3. s + p'e$^{?}$ + men (nominalizer - strike with long object - instrument) ---> /sp'mén/ 'drumstick'

k^{W} + s + p'e$^{?}$ + mex + x (thou - customary aspect - strike with long object - usitative - non-future) ---> /k^{W}sp'méxx/ 'you made a hit (at baseball)'

kn + x^{W}e$^{?}$ + est + lwes (I - move along - physical exertion - repetitive) ---> /knx^{W}stlwés/ 'I am strolling around'

t + x^{W}e$^{?}$ + t'ap + men + n + tem (location - move along - aim at - instrument - completive aspect - 3 person) ---> /tx^{W}t'pméntm/ 'he attacked him'

an + t'e$^{?}$ + ena (thy - lie in position - small object) ---> /ànt'énà/ 'your ear'

q'e$^{?}$ + ƚak + enk (grow - plant - belly-like place) ---> /q'ƚkénk/ 'bushes on mountain side'

sn + q^{W}'e$^{?}$ + an + ƚak + tn (place for - grow - place - plant - nominalizer) ---> /snq^{W}'ánƚktn/ 'farm'

4. wah + am (bark - indefinite object) ---> /òhám/ 'it (dog) barked'

5. c'o$^{?}$ + war (burn - fire) ---> /c'wár/ 'outside fire'

6. cel + eks + t (five - hand - lasting feature) ---> /célkst/ 'five'

nek' + men (cut - instrument) ---> /nék'mn/ 'knife'

7. n + Ia + q^{W}ay + eca + aD (on - iterative - green - outer covering - diminutive) ---> /nq^{W}àq^{W}àyácà/ 'first green salmon'

8. t'aq^{W} + t'aq^{W} + t'aq^{W} + s + lx (cry out - cry out - cry out - 3 person - 3 person pluralizer) ---> /tq^{W}tq^{W}t'áq^{W}slx/ 'they kept crying out'

9. DV + qec + elx (diminutive - run - physical exertion) -->
/qáqclx/ 'he trotted'

c'eq' + D + ɬax̣^{W} (dig - diminutive - hole) --> /cq'ɬɬáx̣^{W}/ 'small hole'

10. IT + nax^{W} (iterative - copulate) --> /náx^{W}nx^{W}/ 'wife'

x̣as + ʕac' + s (good (C) - look at (A) - 3 person) --> /x̣sʕác'c/ 'he is good looking'

x̣as + olawx (good - land) --> /x̣sólàwx/ 'good land'.

B. Base e

1. Class A/B root $C_1eC_2 \dashrightarrow C_1aC_2 \;/ \left\{\begin{matrix} \acute{}\;\_\_ \\ \_\_\;\acute{} \end{matrix}\right\}$;

when root C = ʔ/ʕ/x/x̣.

2. Class B root $C_1eC_2 \dashrightarrow C_1aC_2$ / IT __.

3. Suffix e $\dashrightarrow$ a / $\left\{\begin{matrix} \left\{\begin{matrix} p' \\ \dot{p} \end{matrix}\right\} + \_\_ \\ + \_\_ \left\{\begin{matrix} q^{w20} \\ q \\ x \\ \text{ʕ} \end{matrix}\right\} \end{matrix}\right\}$, when the suffix carries primary or secondary stress.

4. Suffix e $\dashrightarrow$ a / $\left\{\begin{matrix} q^{W}aC \\ xaC \\ \text{ʕ}aC \end{matrix}\right\} + \_\_$,

when the suffix appears with primary stress.

5. ena 'ear' --> ona / q$^{W'}$ __.

Examples

1. IT + pex̣ + mol (iterative - hunt (A) - often) ---> /pàx̣pàx̣mół/ 'he often hunts'

   ka + c + DV + wex (location - near - dimimutive - camp) ---> /kàcwéwàx/ 'she camped'

2. ko + n + IT + sel + t (we - in - iterative - lose - moving along) ---> /kònslsált/ 'we are lost'

   It + teł + t (iterative - straight - integral characteristic) ---> /tłtáłt/ 'it is straight'

3. ḱo + ł + c + p'l + ek (we - back - hither - return - body) ---> /kòłcp'lák/ 'we are going back home'

   s + n + ł + p'ex^{W} + ews + qen (customary - on - small place - shine - top - head) ---> /snłp'x^{W}áwsqn/ 'he is bald'

   kn + n + x̣aw + CP + eł + q^{W}l + t (I - in - dry - completed process - inside surface - mouth - lasting feature) ---> /knnx̣wáłq^{W}lt/ 'my mouth is dry'

   n + łak + ep + lqs (in - bush - bottom - crescent-shaped place) ---> /nłkáplqs/ 'big bush in bottom of hollow'

   IT + co$^{?}$ + elx + et + ek^{W} (iterative - lily - physical exertion - abundant - water) ---> /còcòlxátk^{W}/ 'water lilies'

   c + la^{ʕ} + ewt + om (near - surfaces approach - side by side - body) ---> /cla^{ʕ}áwtm/ 'little valley'

4. n + Ia + q^{W}ay + eca (on - iterative - green - outer covering) ---> /nq̀^{W}àq^{W}àyácà/ 'first green salmon'

an + ɬ + x̣am + enk + ews (thy - kin - want - power - together)
--→ /àɬx̣àmènkáws/ 'your sweetheart'

ʕam + ep (meet - subject passively involved) --→ /ʕàmáp/ 'it (ice) melted'

5. c + wex + c'aqʷ' + ena (durative - upright - point - ear) --→ /còxcqʷ'óna/ 'person or dog with erect ears'.

C. Base a

1. Class A/C root CaC --→ CeC / —̀.
2. Class B root Caʔ --→ Ce / — é.
3. Class B root Caʔ --→ Co / — ó.

Examples

1. D + Dʔ + pac + ek + eɬ + ten + aD (diminutive - diminutive - leaf (A) - somatic - inside surface - season - diminutive)
--→ /pp'èckɬtán/ 'April'

t + k'as + pl + an + cot + n (location - bad (C) - grow - place - self) --→ /tk'èsplàncótn/ 'temptation'

2. ko + kʷaʔ + eks + s (me - bite - hand - 3 person) --→ /kòkʷéékss/ 'he bit my hand'

3. kn + IT + ƛ'aʔ + os (I - iterative - seek - body) --→ /knƛ'àƛ'óós/ 'I searched around'.

D. Base o

1. Class A root ʔoC --→ aC / — ś.
2. Class B/C root Coʔ --→ Cw / — v́.
3. Class B root C_1oC_2 --→ C_1aC_2 / — q, when C_2 is other than ʔ.

4. Suffix o- --→ a- / $\left\{\begin{array}{c} p \\ m \\ w \\ q^{w} \end{array}\right\}$ —, when these consonants appear in the preceding morpheme.

Examples

1. ʔop' + an + wewx + tn (hook - locative - face to face - nominalizer) --→ /àp'nwéwxtn/ 'flower with hook-like blooms'

2. kn + c'oʔ + ak (I - burn (B) + suffer) --→ /knc'wák/ 'I got burnt'

IT + koʔ + a (iterative - strange (C) - person) --→ /kókwà/ 'stranger'

3. sn + q^{w}'oɬ + qen + eɬ + x^{w} (nominalizer - dark brown - head - sheltered - house) --→ /snq^{w}'àɬqnéɬx^{w}/ 'teepee smoke hole'

4. kɬ + op + ep + ost (on - hair - bottom - round object) --→ /kɬòpépàst/ 'beard around mouth'

c + k^{w}el + tap + os (near a place - cream colour - dark in appearance - body) --→ /ck^{w}ltàpés/ 'roan horse with red dorsal line'

n + ml + ops (on - dung - tail) --→ /nmláps/ 'cow'

sox^{w} + mar + om (one who - administer to - body) --→ /sox^{w}màrém/ 'doctor'

s + war + os + lep' (nominalizer - fire - fire - wood) --→ /sòréslp'/ 'wood fire'

n + q^{w}ay + os (on - blue - eye) --→ /nq^{w}àyás/ 'he has a black eye'

sa^{ʕ} + sa^{ʕ} + os (squawk - squawk - face) --→ /sà^{ʕ}sà^{ʕ}ás/ 'ruffed grouse'

V. Other Patterns

1. CV --→ ∅, when C and V are the initial segments of talé- 'very', and ɬakɬ- 'possess'. The rule is effected in fast speech.

Deliberate or slow speech:

/tàléknˁáymt/ 'I am very angry'; /knƚàkƚkkwáp/ 'I have a dog'

Fast speech:

/léknˁáymt/ 'I am very angry'; /knkƚkkwáp/ 'I have a dog'

2. tem '3 person subject' ~ tes, free variation

/kòst'àpstém kòst'àpstés/ 'he shoots at me/us'

Some informants have a tendency to use the first variant when ko- has singular reference, and the second when ko- has plural reference. Other informants do the opposite.

CONCLUSION

This thesis presents the only description of Okanagan phonemes illustrated with twentieth century data, together with an account of Okanagan pepet vowels. The morphological description is the first one presented for Okanagan in this half century, and the third one presented for an Interior Salishan language. Those of Reichard (Coeur d'Alene) and Vogt (Kalispel) are more than thirty years old, and are now undergoing revision. The Okanagan stress rules set out in the Morphophonemics are the first for any Interior Salishan language.

Use of the item and process grammatical model encourages concentration on surface structure, and leads to the introduction of exemplificatory utterances. The model is familiar to Amerindianists; and the data permits easy comparison with accounts of other Interior Salishan languages, e.g. Reichard's Coeur d'Alene, Vogt's Kalispel, and Kuiper's forthcoming Shuswap grammar.

Geographically, Okanagan is situated between Kalispel and Columbian on its southern limits (the latter language is currently being studied by M.Dale Kinkade), and by Shuswap on its northern limits. The availability of the Okanagan data will complete the linguistic continuum from north to south in the Interior Salishan language area. Significant comparative work will now be possible in this area. The pharyngeal consonants, for example, can be investigated. Only one

such phoneme exists in Okanagan, while in Columbian and Methow four pharyngeals have been established. Morphologically, the lexical suffixes are arousing interest. To the south their numbers appear to be smaller than in Okanagan; while to the west, in Thompson for example, their numbers are greater.

Besides being essential for comparative studies, the data included in the thesis are considered valuable for the reason that Okanagan fieldwork is fast becoming salvage work. Floyd Lounsbury has remarked,

> The recording and description of every one of these [dying languages] is as important to the science of linquistics as is natural history to the science of biology. When the 'natural history' of language is fairly adequately written, . . . we can look forward to much more of a 'science' of general principles' in language than we now possess.[21]

As for the Indians themselves, linguistic research in this language area has enabled two of their numbers already to learn orthographic symbols and write letters in their own language. Other Indians are already certified teachers, living on Reserves where schools are boarded up as a result of disagreement over the language problem. With the availability of an alphabet and a grammar, a new dimension has appeared on the educational scene. The Okanagans now have the potential of realizing the long-held ambition of teaching their own language to their own children in their own schools.

FOOTNOTES

[1] In some of these examples we suspect that diachronically an affix was present with, say, q- or ^{c}-, or which always carried primary stress. Under these conditions, vowel change took place. Subsequently, the suffix disappeared leaving the vowel difference unexplainable in synchronic terms.

[2] Not two, as is alleged of certain Navaho morphemes in Hoijer's grammar. See Stanley 1969:927-39.

[3] See Bloomfield 1933:164, and Gleason 1961:82.

[4] Hockett 1958:279-80.

[5] Terminology from Hockett 1958:272.

[6] Reichard 1958:294,299 and 1959:249.

[7] Reichard 1938:686.

[8] Reichard 1938:647, 'There are exceptions to this as to many of the rules of accent', also 'shifts of accent which I cannot explain'.

[9] Reichard 1959:294. On page 299 she writes 'accent and vowel change will be discussed in paragraphs 8.16 and 8.35', but fails to do so.

[10] Tweddell 1950.

[11] Snyder 1968.

[12] Snyder 1968:6,20-2.

[13] Vogt 1940b:51.

[14] Drachman 1969:72-3, 125-6.

[15] Reichard 1958:299 specifically noted m as the only labial that does not effect vowel change in Coeur d'Alene, Kalispel, and Snoqualmie-Duwamish.

[16] This rule does not apply in the Penticton dialect.

[17] Further examples: 'March' pəsknə́rmn (buttercup time), 'May' pespéƛ'mtn (bitter root time), 'June' pəséatn (berry time), 'June' pesxoétk^{w} (high water time). Perhaps by analogy, -s is lost in 'June'

pec'aáq^{W} (flowering time), 'July' peméktotn (sunflower seed time), 'September' pexaxáy (sunny time), 'September' pekknétn (kickinee trout time), 'October' pekayám (deer hunt time). The -s is not lost in 'November' pensax^{W}x^{W}welx (cold time). This prefix is lacking in corresponding terms in the Penticton dialect.

[18] Terminology from Hockett 1958:273-4. 'Every one of the "normal" allomorphs of every morpheme in a language is surrounded by a vaguely defined family of phonemically similar shapes which, in a random way, sometimes occur in its stead'.

[19] Newman 1969a:175 found a number of Bella Coola roots with related meanings showing vowel contrasts. But such alternations were 'too sparse to reveal any consistent patternings of . . . vocalic shift'. Vowel alternation in Upper Chehalis is discussed in Kinkade 1966.

[20] Reichard 1958:299 noted the influence of q in effecting an e-a change in Coeur d'Alene, Kalispel, and Snoqualmie-Duwamish. See also Reichard 1938:561-3, Vogt 1940b:19.

Conclusion

[21] Floyd G. Lounsbury in Voegelin 1950:299.

APPENDIX

ILLUSTRATIVE VERBAL PARADIGMS
IN PHONEMIC TRANSCRIPTION

I. Intransitive

A. Continuative: sc-

kec 'come'

	S		P
1	knsckecx	1	kosckécx
2	k^{W}sckecx	2	psckecx
3	sckecx	3	sckecxlx

t'ap 'aim at'

	S		P
1	esct'áp	1	sct'aptt
2	asct'áp	2	sct'apmp
3	sct'aps	3	sct'apslx

B. Customary: s-

kec 'come'

	S		P
1	knskecx	1	koskécx
2	k^{W}skecx	2	pskecx
3	skecx	3	skecxlx

t'aq^{W} 'cry out'

	S		P
1	est'áq^{W}	1	st'aq^{W}tt
2	ast'áq^{W}	2	st'aq^{W}mp
3	st'aq^{W}s	3	st'aq^{W}slx

C. Completive: 0

kec 'come'

	S		P
1	knkec	1	kokéc
2	k^{W}kec	2	pkec
3	kec	3	keclx

xoy 'go'

	S		P
1	exóy	1	xoytt
2	axóy	2	xoymp
3	xoys	3	xoyslx

II. Intransitive with nominalized form

A. Unpossessed (corresponding to English: I am a . . .)

slax̣t 'friend'

S		P	
1	knslax̣t	1	koslax̣láx̣t
2	k^{W}slax̣t	2	pslax̣láx̣t
3	slax̣t	3	slax̣láx̣t(lx)

B. Possessed

slax̣t 'friend'

1-2	koasláx̣t	3-1	esláx̣t	2p-3p	pslax̣láx̣clx
1-3	kosláx̣c	3-2	asláx̣t	3p-1	eslax̣láx̣t(lx)
1-2p	kosláx̣tmp	3-1p	slax̣tt	3p-2	aslax̣láx̣t(lx)
1-3p	kosláx̣clx	3-2p	slax̣tmp	3p-3	slax̣láx̣c(lx)
2-1	k^{W}esláx̣t	2p-1	peslax̣láx̣t	3p-1p	slax̣láx̣tt(lx)
2-3	k^{W}sláx̣c	2p-3	pslax̣láx̣c	3p-2p	slax̣láx̣tmp(lx)
2-1p	k^{W}slax̣tt	2p-1p	pslax̣láx̣tt	3p-3p	slax̣láx̣clx
2-3p	k^{W}slax̣clx	2p-3p	pslax̣láx̣clx		

III. Transitive with indefinite 3 person object (-am)

A. Continuative: sc-

t'ap 'aim at'

S		P	
1	knsct'apám	1	kosct'apám
2	k^{W}sct'apám	2	psct'apám
3	sct'apám	3	sct'apámlx

S		P	
1	esct'apám	1	sct'apámtt
2	asct'apám	2	sct'apámp
3	sct'apáms	3	sct'apámslx

B. Customary: s-

pex̣ 'hunt'

S		P	
1	knspex̣m	1	kospéx̣m
2	k^{W}spex̣m	2	pspex̣m
3	spex̣m	3	spex̣mslx

S		P	
1	espéx̣m	1	pex̣mtt
2	aspéx̣m	2	pex̣mp
3	spex̣ms	3	pex̣mslx

C. Completive: 0

kec 'come, come upon'

S		P	
1	knkecm	1	kokécm
2	kʷkecm	2	pkecm
3	kecm	3	kecmlx

S		P	
1	ekécm	1	kecmtt
2	akécm	2	kecmp
3	kecms	3	kecmslx

IV. Transitive with unrestricted objects

A. Continuative: sc-

ƛ'aʔ 'seek out'

1-2	kʷescƛ'aám	3-3	scƛ'aam	2p-3	scƛ'aamp
1-3	escƛ'aám	3-1p	koscƛ'aáms	2p-1p	koascƛ'aám
1-2p	pescƛ'aám	3p-2p	pscƛ'aams	2p-3p	scƛ'aamp(lx)
1-3p	escƛ'aám(lx)	3-3p	scƛ'aams	3p-1	koscƛ'aáms(lx)
2-1	koascƛ'aám	1p-2	kʷescƛ'aám	3p-2	kʷscƛ'aams(lx)
2-3	ascƛ'aám	1p-3	koscƛ'aám	3p-3	scƛ'aams(lx)
2-1p	koascƛ'aám	1p-2p	pescƛ'aám	3p-1p	koscƛ'aáms(lx)
2-3p	ascƛ'aám	1p-3p	koscƛ'aám(lx)	3p-2p	pscƛ'aams(lx)
3-1	koscƛ'aáms	2p-1	koscƛ'aámp	3p-3p	scƛ'aams(lx)
3-2	kʷscƛ'aams	2p-3	scƛ'aamp		

ˤac' 'look at'

1-2	kʷescˤác'm	3-3	scˤac'ms	2p-3	scˤac'mp
1-3	escˤác'm	3-1p	koscˤác'ms	2p-1p	koascˤác'm
1-2p	pescˤác'm	3-2p	pscˤac'ms	2p-3p	scˤac'mp(lx)
1-3p	escˤác'm(lx)	3-3p	scˤac'ms	3p-1	koscˤác'mx(lx)
2-1	koascˤác'm	1p-2	kʷescˤác'm	3p-2	kʷscˤac'ms(lx)
2-3	ascˤác'm	1p-3	escˤác'm	3p-3	scˤac'ms(lx)
2-1p	koascˤác'm	1p-2p	pescˤác'm	3p-1p	koscˤác'ms(lx)
2-3p	ascˤác'ms	1p-3p	escˤác'm(lx)	3p-2p	pscˤac'ms(lx)
3-1	koscˤác'ms	2p-1	koscˤác'mp	3p-3p	scˤac'ms(lx)
3-2	kʷscˤac'ms				

B. Customary: -s

t'ap 'aim at'

1-2	st'apstómn	3-2	st'apstóms	2p-1	kost'apstép
1-3	st'apstén	3-3	st'apstés	2p-3	st'apstép
1-2p	st'apstómn	3-1p	kost'apstém	2p-1p	kost'apstép
1-3p	st'apstén(lx)	3-2p	st'apstóms	2p-3p	st'apstép
2-1	kost'apstéxʷ	3-3p	st'apstés(lx)	3p-1	kost'apstés(lx)
2-3	st'apstéxʷ		(st'apstéms)	3p-2	st'apstóms
2-1p	kost'apstéxʷ	1p-2	st'apstómt	3p-3	st'apstés(lx)
2-3p	st'apstéxʷ	1p-3	st'apstém	3p-1p	kost'apstém
3-1	kost'apstém	1p-2p	st'apstómt	3p-2p	st'apstóm(lx)
	(kost'apstés)	1p-3p	st'apstém(lx)	3p-3p	st'apstéms(lx)

C. Completive: -n

caˀ 'punch'

1-2	caˀncén	3-3	caˀntés	2p-3	caˀntep
1-3	caˀntén	3-1p	kocaˀntém	2p-1p	kocaˀntép
1-2p	całólmn	3-2p	całolms	2p-3p	caˀntép
1-3p	caˀnténlx	3-3p	caˀntés	3p-1	kocaˀntés(lx)
2-1	kocaˀntéxʷ	1p-2	caˀncét	3p-2	caˀncés(lx)
2-3	caˀntéxʷ	1p-3	caˀntém	3p-3	caˀntés(lx)
2-1p	kocaˀntéxʷ	1p-2p	całólmt	3p-1p	kocaˀntém
2-3p	caˀntéxʷ(lx)	1p-3p	caˀntém(lx)	3p-2p	całólms(lx)
3-1	kocaˀntén	2p-1	kocaˀntép	3p-3p	caˀntés(lx)
3-2	caˀncés				

wek 'see'

1-2	wekncn	3-3	weks	2p-3	wekntp
1-3	wekn	3-1p	kowékntm	2p-1p	kowékntp
1-2p	wekłmn	3-2p	wekłms	2p-3p	wekntp
1-3p	wekn(lx)	3-3p	weks	3p-1	kowékslx
2-1	kowékntxʷ	1p-2	weknct	3p-2	wekńclx
2-3	wekntxʷ	1p-3	wekntm	3p-3	weks(lx)
2-1p	kowékntxʷ	1p-2p	wekłmt	3p-1p	kowékntm
2-3p	wekntxʷ(lx)	1p-3p	wekntm(lx)	3p-2p	wekłms
3-1	kowéks	2p-1	kowékntp	3p-3p	weks(lx)
3-2	weknc				

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CLASSIFIED AFFIX MORPHEMES

BASE FORMS

Proclitic: e- 'article'

Morpheme Class 1. Emphatic

1. pen- 'time'
2. me- 'obligation: should, please; anticipation: (I) expect to'
3. t'e- 'location in time: now, then; location in space: at, near, there; article: the, this'
4. ƛa- 'from a time or place'
5. la- 'at a location'
6. talé- 'very'
7. ca- 'personal concern'
8. cm- 'possibility'
9. k^{W}a- 'indeed'
10. k'a- 'movement to or location at a specific place'
11. ke- 'indeed'

Morpheme Class 2. Pronoun

1. en- '1 person subject/possessive
2. an- '2 person subject/possessive
3. p- 'ye subject'
4. p- 'ye object'
5. k^W- 'thou'
6. k^W- 'thee'
7. ko- '1 person subject: I, we'
8. ko- '1 person object: me, us'
9. kn- 'I'

Morpheme Class 3. Nominalizer

1. a- 'nominalizer'
2. cn- 'nominalizer: person, object, geographic feature'
3. s- 'nominalizer'
4. sox^W 'agent: one who'
5. sn- 'nominalizer: that which, place for'

Morpheme Class 4. Adverb

1. ta- 'negative'
2. ła- 'subordinate'

Morpheme Class 5. Verbalizer

1. n- 'intransitive'
2. łakł- 'possess'
3. c- 'durative'
4. s- 'customary'
5. sc- 'continuative'
6. ks- 'intentional; simple or inevitable future; imperative'

Morpheme Class 6. Preposition-Adverb

1. t- 'location: at, on near, there; thither, towards'
2. t'- 'by: instrumental, agentive'
3. n- 'in, into, on, onto'
4. ƛ- 'from'
5. ł- 'back'
6. ł- 'again'
7. l- 'location'
8. c- 'movement at or to something or someone; hither; near place'
9. k'ł- 'on, at, covering'
10. k'l- 'into, towards, for benefit of'
11. k- 'movement to or at a specific place'

Morpheme Class 7. Nominal

1. po- 'spouse'
2. tac- 'distributive'
3. nok^{w}'- 'fellow'
4. ł- 'kin'
5. ł- 'small object or place'
6. łł- 'related through spouse'
7. łł- 'fish'
8. k'ol- 'partner'

9. ke- 'person'

10. ko- 'small object'

Morpheme Class 9. Adverb	Stress Classification
1. -ep 'subject passively involved'	Variable, Type A
2. -est 'act deliberately, consciously; causative'	Variable, Type A
3. -elx 'requiring physical exertion'	Variable, Type A
4. -ak 'suffering, enduring'	Variable, Type A
5. -ot 'in position, condition'	Variable, Type A
6. -m 'causative'	Invariable
7. -mex 'usitative: using an instrument'	Primary
8. -mołł 'often, frequent, habitual'	Primary
9. -t 'moving along'	Invariable
10. -t 'capable of producing'	Invariable
11. -n 'attempted act'	Invariable
12. -non 'manage to, finally succeed in'	Primary
13. -łt 'dative: to, to deprivation of; for, for benefit of'	Invariable
14. -l 'illative'	Invariable
15. -lwes 'keep trying or doing'	Primary
16. -s 'artificially, unnaturally'	Invariable
17. -x 'acting habitually or characteristically; habitual state'	Invariable
18. -xt 'dative; indirect object'	Invariable
19. -q 'describing a curve'	Invariable

Morpheme Class 10. Nominal-Locative

1.	-ea 'outside'	Variable, Type B
2.	-ep 'bottom of something, opening at bottom, doorway, mouth'	Primary
3.	-em 'body'	Primary
4.	-emn 'indulger in'	Primary
5.	-et 'abundant'	Primary
6.	-en 'round object'	Primary
7.	-ena 'small object, ear'	Primary
8.	-enk 'belly, bellylike'	Primary
9.	-enk 'source of power, strength'	Variable, Type A
10.	-eł 'sheltered'	Primary
11.	-eł 'inside surface, mouth, food'	Variable, Type A
12.	-ełp 'tree, bush, rib'	Variable, Type A
13.	-el 'even surface'	Variable, Type A
14.	-elp 'bereaved person'	Primary
15.	-elt 'property, child'	Variable, Type A
16.	-els 'heart, feel like (doing)'	Primary
17.	-eca '(removed) body covering, hair, hide'	Primary
18.	-es 'tooth'	Variable, Type B
19.	-ek^W 'water'	Variable, Type A
20.	-ex^W 'mouth'	Primary
21.	-ewt 'side by side'	Primary
22.	-ews 'surrounded: middle, together'	Primary
23.	-ews 'top, high, place'	Variable, Type A

24. -ek 'somatic, body'	Variable, Type A
25. -ekn 'ridge, back'	Primary
26. -eks 'finger, hand, arm'	Variable, Type A
27. -a 'person'	Invariable
28. -a 'little'	Invariable
29. -ap 'weather, time'	Primary
30. -ap 'bottom of something: base, foot'	Primary
31. -ap 'body, mass'	Variable, Type A
32. -an 'place'	Primary
33. -an 'locative'	Variable, Type A
34. -ałq 'bush or tree fruit'	Primary
35. -al 'living creature'	Primary
36. -alx^W 'outer covering, hide'	Variable, Type A
37. -alq^W 'log'	Primary
38. -alq^W 'legs'	Variable, Type A
39. -alqs 'clothes'	Variable, Type A
40. -asq't 'day, weather, sky'	Variable, Type A
41. -ax^W 'meat'	Variable, Type A
42. -ax^W 'ground level'	Variable, Type B
43. -ax^{W}c 'chest'	Primary
44. -axn 'arm, wing'	Variable, Type B
45. -aq^W 'plant, tree'	Variable, Type A
46. -aqn 'head'	Variable, Type B
47. -aqs 'long member of group or set'	Primary
48. -aqs 'nose, point'	Variable, Type A
49. -ops 'posterior region, tail'	Variable, Type A
50. -om 'body'	Variable, Type A

51. -olawx 'land, earth, country'	Primary
52. -os 'fire, eye, face'	Primary
53. -os 'body'	Variable, Type A
54. -ost 'round object'	Variable, Type B
55. -pasxn 'upper arm'	Primary
56. -men 'instrument'	Variable, Type A
57. -mex^{W} 'tribesman'	Primary
58. -t 'integral or natural characteristic'	Invariable
59. -t '(human) physical condition, often temporary'	Invariable
60. -ten 'season, month'	Variable, Type A
61. -tn 'nominalizer'	Invariable
62. -tk 'time, permanence'	Invariable
63. -tx 'young person; sibling'	Invariable
64. -n 'nominalizer'	Invariable
65. -ne 'dead person'	Primary
66. -łak 'plant, bush'	Variable, Type A
67. -lps 'horse's mane'	Invariable
68. -lqs 'crescent-shaped place: bottom, bay'	Invariable
69. -c'a 'game animal'	Invariable
70. -ca 'brother'	Invariable
71. -cen 'edge, opening, mouth, language'	Variable, Type A
72. -cen 'time, weather'	Variable, Type A
73. -cot 'self'	Primary
74. -sax 'flat surface'	Variable, Type A
75. -semx^{W} 'cow's udder or teat'	Primary
76. -stxn 'leg'	Invariable

77. -sqaxa 'horse'	Primary
78. $-x^W$ 'hide, hide-bearing, person'	Invariable
79. $-x^W$ 'house'	Invariable
80. $-x^W lx$ 'general fish'	Invariable
81. -wea 'small animal'	Primary
82. -wewx 'face to face'	Primary
83. -x 'body, person'	Invariable
84. -x̣an 'leg, foot'	Variable, Type A
85. -xos 'face, neck'	Primary
86. -xn 'long'	Invariable
87. -ya 'salmon'	Invariable
88. $-q^W l$ 'mouth'	Invariable
89. -qen 'head'	Variable, Type A
90. -aD 'diminutive'	Variable, Type B
91. -IP 'incomplete process'	Primary
92. -CP 'completed process'	Invariable

Morpheme Class 11. Verbalizer

1. -ax 'future'	Invariable
2. -n 'completive aspect'	Invariable
3. -s 'customary aspect'	Invariable
4. -welx 'become'	Primary
5. -x 'non-future'	Invariable

Morpheme Class 12. Pronouns

1. -am 'indefinite object'	Variable, Type A
2. -mp 'ye subject, your'	Invariable
3. -t 'we' (always follows 2 person object)	Invariable

4. -t 'thou imperative, transitive completive'	Invariable
5. -te 'ye imperative, transitive completive'	Invariable
6. -tep 'ye subject'	Variable, Type A
7. -tem '3 person subject'	Variable, Type A
8. -tem '3 person object'	Variable, Type A
9. -tem 'we'	Variable, Type A
10. -ten 'I'	Variable, Type A
11. -tek^W 'thou imperative, transitive customary'	Variable, Type A
12. -tek^{W}e 'ye imperative, transitive customary'	Variable, Type A
13. -tex^W 'thou'	Variable, Type A
14. -tom '2 person object'	Variable, Type A
15. -tt 'we, our'	Invariable
16. -n 'I' (always follows 2 person object)	Invariable
17. -łolm 'ye object'	Variable, Type A
18. -lx '3 person pluralizer'	Invariable
19. -ce 'thee'	Variable, Type A
20. -s '3 person subject/possessive'	Invariable
21. -s '3 person subject, transitive'	Invariable
22. -we 'ye imperative'	Invariable
23. -x 'thou imperative'	Invariable

SELECTED LIST OF STEM MORPHEMES

BASE FORMS

p'

Morpheme	Gloss
p'el	spread out
p'ec	squeeze, pinch
p'es	big, long (plural)
p'exʷ	bright
p'exʷ	pink
p'ek'	shiny
p'ex	brand, burn
p'om	brown
p'oʔ	limit
p'ok	round object
p'oʔ	flatulate
p'lak	return (plural)
p'yaq	ripe, cooked

p

Morpheme	Gloss
pet	pin
pen	time
pel	enter (plural)
pec	fibrous material
pekʷ'	martin
pek	dig
pek	seed, wood
pex̣	hunt
peq	white
paƛ'	collapse
peƛ	rock rose
pał	thick
pac	leaf
pas	think
pax	scrape, scratch
pax	think
paʔ	pull at
paʕ	be white, gray, infinity
paʕ	buckskin, colour
pot	still, very
pot	container
pon	juniper
poƛ'	fog
poƛ	beat
poł	spray
pol	smoke
pol	camp
pos	cat
pox	blow, cure
poq	grey, mouse coloured
poʔ	beat, go bump
pt	spit
pn	liver
pl	beat, kill, break
pl	grow
ps	lie flat on
pr	bend

m

Morpheme	Gloss
mep	know
men	rub
men	slime
meƛ'	deal (cards)
meƛ'	paint, daub
mel	round body
melqʷ	round
mes	more
mes	know
mes	girl's father
meqʷ	snow
maʔ	big
mam	bore
mam	swallow-bird
mam	wife
mat	maybe
mat	blunt
mał	calm
mal	deceive
marém	administer
may	end, tip
may	teach, relate
maqʷ'	lump
maʕ	break
mot	sit
mol	trap
molx	Balm of Gilead
mos	four
mokʷ	wild sunflower
młk'	blood
ml	dung
ml	multiply
mr	spruce
mkʷ	high
mx	cedar
myał	too

Morpheme	Gloss
mg	fasten
m^{ʕ}aʔ	long object lies
t'	
t'ep	cut down
t'el	dried salmon
t'ec'	pine pitch
t'eq$^{w'}$	dirty, muddy
t'eq	tall
t'eʔ	lie in position
t'ap	aim at, shoot
t'am	seize, catch
t'ak$^{w'}$	lie down
t'ax	sweet
t'ak	snowflake
t'aq$^{w'}$	lie down
t'aq^{w}	cry out
t'aq'	cross over
t'aʔ	strike
t'ol	change
t'ox	fly
t'ox	only, merely
t'k	blind
t'g	flow
t	
teeʔ	grass
tem	stuff, wherewithall, what?
tem	grandmother
teł	straight, flat
tel	will
tes	fill
tek$^{w'}$	spark
tew	young
tekł	reach bottom
tap	appear dark
tam	cover, watch over
tam	property
tał	waterproof
tał	straight
tał	very
tak^{w}	rotten
tawn	little
tax̣	bitter
taq̱'	virgin
taq'	short
taq	dam
taq	wave, move

Morpheme	Gloss
taʔ	strike
taʔ	endure
top	great relative
tom	suck, woman's mother
tox	straight
tr	turn
tk	prop up
tke	urine
tx	comb
tx	sister
tyaq^{w}	fight
n	
nes	distant
ner	smooth
nex^{w}	also
new	blow, wind
nek'	cut
nek	ordure
nex	hear
nał	and
nas	heavy
nax^{w}	gallop
nax^{w}	copulate
nay	soap stone
naq$^{w'}$	steal
naqs	one
nom	body
not	insert
non	believe
ƛ'	
ƛ'el	be silent
ƛ'al	die
ƛ'ak^{w}	poke in
ƛ'ak^{w}	speckle
ƛ'ax	big
ƛ'aq$^{w'}$	ladle
ƛ'aʔ	seek out, fetch
ƛ'aʔ	several are big
ƛ'oʔ	douse
ƛ	
ƛał	correct, straight
ƛak	contain
ƛok	carrot

ƛ

Morpheme	Gloss
ƛel	sprinkle
ƛex	hollow, dig
ƛeqʷ	meat, flesh
ƛap'	mark
ƛap	sip
ƛam	cough
ƛat'	wet
ƛac'	whip
ƛakʷ'	pierce
ƛax̣ʷ	wild cherry
ƛax̣ʷ	hole
ƛaw	soak
ƛaw	stab
ƛak	bush
ƛaq'	wide
ƛoxʷ	run
ƛok	dirt
ƛoʔ	spoon
ƛt'	jump
ƛk	sew
ƛqʷ	store
ƛq'	lie down

l

Morpheme	Gloss
leew	man's father
lep'	wood
lem	please
lew	bell
lek	thin
leqʷ'	splash
leqʷ	ram
lap	fold, bend
lak'	tie up, bind
lax	friend
laʕ	surfaces approach
lot	negative
ltko	otter
lg	sting

c'

Morpheme	Gloss
c'elx	grab, seize
c'elx	shaded
c'ew	back
c'ek	burn
c'ex̣	wife's brother
c'eq	shock
c'eʔ	wash
c'aƛ	cold
c'al	be upright, stand, seed
c'as	head
c'aqʷ'	point
c'aʔ	flower
c'om	make kissing sound
c'oʔ	burn
c'oʔ	bone
c's	destroy
c'k	count

c

Morpheme	Gloss
c	round
cet	house
cel	five
ceq'	dig
car	be lazy
cakʷ	pull
caˤx̣	red
caq'	throw, hit
caʔ	cry out
caʔ	hit
caʔ	personal concern
caʕ	bathe
cop	eye trouble
cot	remain
cȯt	express oneself
con	tell, say
coƛ	bull
coʔ	seek out
cm	offspring
cr	jump
cy	arrive
cq'	fir wood
cq	outside, be in position
cʕaʔ	finger

s

Morpheme	Gloss
sep'e	animal hide
sen	young
sel	one is big, long
sel	lose
sec	seldom, new, next

Morpheme	Gloss
sex	move
sey	be ambitious
seq'	split
sam	white man
sat'	fall (plural)
sat	pine tree
san	tame
sakʷ	swell
saxʷ	move down
saxʷ	cool, cold
sak'	narrow
saqʷ'	bore, annoy
saʔ	kinfolk
saʕ	pour away
soþ	stringlike object
soxʷ	depart
soq'	mix
soʔ	power
soʔ	freeze
syoʔ	drink
sqáxa	horse
kʷ'	
kʷ'en	interrogative quantity
kʷ'ac	night
kʷ	
kʷen	interrogative quantity
kʷen	grab, take
kʷen	water falls
kʷeƛ'	other
kʷel	heat
kʷel	sit, locate
kʷel	cream colour
kʷel	move away
kʷes	hold
kʷes	name
kʷeʔ	anger
kʷan	low
kʷac	early
kʷac	strong
kʷaʔ	bite
kʷn	sing
kʷƛ'	spot, eye
kʷ	face
kʷre	yellow

Morpheme	Gloss
xʷ	
xʷep	spread
xʷeł	road
xʷel	owe
xʷec	give
xʷer	knotch, fray, tremble
xʷam	red
xʷat	quack
xʷal	be alive
xʷay	cover, shelter
xʷay	sharp
xʷaʔ	seize
xʷaʔ	abundant
xʷeʔ	go, eject, move through space
xʷc'	break
w	
wet	vomit
wel	bereave
wes	high, long
wekʷ	hide
wek	see
wex	set upright, camp
weʔ	mature male, who?
wan	war dance
wah	bark (dog)
war	fire, burn
way	finish
way	salutation
k'	
k'el	protect
k'em	dark
k'em	remain
k'et	be cold
k'et	lose from misfortune
k'et	close
k'ew	climb
k'ewł	old
k'al	dark
k'at	brown
k'am	strike
k'as	bad
k'aw	absent
k'aʔ	near
k'aʕ	pray

Morpheme	Gloss
k'ol	work, make, do
k'om	brow
k'ot	half
k'os	go
k'm	body
k'n	listen
k'r	hook, swim, cut
k'w	swim
k	
kep	be dusk
kel	grasp at
kem	dislike
ken	interrogative
kec'	meat hungry
kec	come
kec	side
kew	thin
keʔ	female, older relative
keʔ	then
keʔ	affirmative
kap	cup
kam	or
kał	three
kał	behind
kalé	quiet
kaw	snake
kay	deer
kag	thin
kaʔ	crow
kaʕ	imitate, pray
kom	hold several
kot	distant
kos	curl
kos	stray
kok	thank
koʔ	strange
km	outside
kn	harm, cut up
kn	external extension
kw	be silent
kx	walk
x	
xet	run
xet	first
xet	lay on hands
xeƛ'	trousers

Morpheme	Gloss
xeł	frighten
xel	do
xel	(top of) inclined plane
xam	like, love, want
xal	beg
xal	locate
xac'	arouse curiosity, strange
xac'	hard
xaykʷ'	onion
xaʔ	agree
xop	win
xom	dive, drop
xom	grease
xot	down
xot	girl
xon	fall
xoƛ	teepee
xos	foam
xoy	go
xoy	ice
xoy	break
xoʔ	much, many
xmen	enemy
xn	push, hurt
xƛ'	rock
xl	chop
xc	bet
xs	turn, twist
y	
yen	fly
yer	push
yer	round
yeq'	wear down
yeq'	encircle
yar	string together
yaxʷ	fall (singular)
yax	look at
yaxes	third person
yaqʷ	be above
yaʔ	all
yaʕ	walk, run
yoƛ	raven
yok	mariposa lily

Morpheme	Gloss
qʷ'	
qʷ'ec	strong
qʷ'ec	full
qʷ'ey	smell fire
qʷ'eʔ	grow, plant
qʷ'as	engender
qʷ'ay	black
qʷ'oł	dark brown
qʷ'oy	calm down
qʷ'l	gather (berries)
q̲ʷ	
qʷem	child
qʷeł	carry
qʷeł	relative
qʷel	roll
qʷel	carry (on back)
qʷel	hot, red
qʷel	speak, mouth
qʷel	cheat
qʷey	dark brown
qʷam	be oblivious
qʷan	pity
qʷal	high
qʷac	warm
qʷay	blue, green
qʷaʕ	be crazy, drunk, slip
qʷm	pile
qʷt	louse
qʷc	earth
x̣	
x̣eq	scrub
x̣ap	north
x̣am	like, love
x̣al	daylight
x̣as	good
x̣aw	dry
x̣ax̣	stick (of wood)
x̣oyƛ'	climb
q'	
q'ep	pinch
q'em	soon
q'et'	hook
q'et	rain
q'el	mottled
q'el	be sick, lie down
q'eʔ	mark, write
q'eʔ	be mottled
q'ap	sand
q'am	swallow
q'al	past
q'ay	be multi-coloured
q'aʔ	protect, cover
q'om	move
q'ol	learn
q'oc	fat
q'oy	man's mother
q'sape	long time
q	
qep	grow
qep	cover
qeł	awake
qel	dorsum
qel	top
qel	person, Indian
qec	run
qeʔ	draw milk
qeʔ	smell
qay	pull
qaq	bend, fish
qaq	brother
qaʔ	breast
qom	desirous
qom	excel
qon	take, catch
qoł	blowing particles, dust
qoʔł	bee, wasp
qs	scratch
g	
gep	long object stands
gec	hawk
gan	itch
goy	burrow
ʔ	
ʔep	wipe
ʔem	sit
ʔem	move out
ʔetx	sleep
ʔent	interrogative say
ʔencá	I
ʔełn	eat
ʔel	strike
ʔel	than
ʔel	hungry

Morpheme	Gloss
ʔelé	yonder
ʔec'	equesetum
ʔeck	play
ʔewɬ	something in water
ʔek'	spark, fire
ʔexé	that one
ʔeq	scrape
ʔápna	today
ʔaɬ	more
ʔaɬé	just like
ʔal	rail
ʔalé	because
ʔalá	here
ʔácqa	outside
ʔasél	two
ʔaw	follow
ʔax	turn
ʔaxé	that, thus
ʔay	consolidate, tie
ʔop'	hook
ʔop	hair
ʔopn	ten
ʔom	utter
ʔonéxʷ	most certainly
ʔoɬ	enter
ʔoɬ	and, then
ʔol	burn
ʔol	gather
ʔoc	surely

Morpheme	Gloss
ʔos	round object
ʔokʷ	crawl
ʔoxʷ	flame
ʔok	bring
ʔox	infant
ʔohóy	hey there

h

Morpheme	Gloss
hew	rat
haʔ	interrogative
ham	damp
hah	laugh

ʕ

Morpheme	Gloss
ʕam	thirst
ʕam	melt
ʕat	blue hawk
ʕan	mottle, magpie
ʕaƛ'	gnaw
ʕal	submerge
ʕal	lose by gambling
ʕal	chill
ʕac'	look at
ʕac	tie up
ʕaxʷ	(barbed) wire
ʕax	stripe, lace
ʕay	mouth region, throat
ʕaʔ	squawk

* * *

ENGLISH-OKANAGAN WORD LIST

Word list used for frequency count of phonemes charted on page 38 of Phonology. Terms are a combination of the 200 and 100 word lists discussed in Swadesh, Morris. 1955. Towards Greater Accuracy in Lexico-statistic Dating. IJAL 21:121-37. Whenever possible a complete utterance is used, but verb forms lack aspect and pronouns.

1.	all	yayát
2.	and	nał
3.	animal	stm^{ʕ}alt
4.	ashes	q^{w}lmen
5.	at	l-
6.	back	snk'mekn
7.	bad	k'ast
8.	bark	k'elélx^{w}
9.	because	sc'axélx
10.	belly	sq^{w}lcnenk
11.	berry	séa
12.	big	sélx^{w}a
13.	bird	skkáka
14.	bite	k^{w}a$^{?}$-
15.	black	q^{w}'ay
16.	blood	młk'éa
17.	blow	pox-
18.	bone	sc'em
19.	breathe	łx̣^{w}ncot
20.	burn	c'ekk
21.	child	sq^{w}q^{w}emlt
22.	cloud	sktmtamt
23.	cold	c'ałt
24.	come	kec
25.	count	c'kmex
26.	cut	nek'-
27.	day	sx̣alx̣ált
28.	die	ƛ'al
29.	dig	ceq
30.	dirty	łókolawx
31.	dog	kkwap
32.	drink	syost
33.	dry	x̣awx̣áwt
34.	dull	mtmatk^{w}t
35.	dust	qołt
36.	ear	t'éna
37.	earth	tmhólawx
38.	eat	ełn
39.	egg	aósa
40.	eye	snk^{w}ƛ'ostn
41.	fall	yax^{w}t
42.	far	lkot
43.	fat	q'oct
44.	father	leew

45.	fear	nxeɬ
46.	feather	staqpéystn
47.	few	k^{W}k^{W}éna
48.	fight	tyaq^{W}t
49.	fire	sorésl p'
50.	fish	qaqx^{W}l̀x
51.	five	celkst
52.	float	kɬcqetk^{W}
53.	flow	tgap
54.	flower	c'aaq^{W}
55.	fly	t'oxt
56.	fog	spoƛ'nt
57.	foot	sc'ox̣án
58.	four	mos
59.	freeze	soʔlt
60.	give	x^{W}ec
61.	good	x̣ast
62.	grass	sopólawx
63.	green	q^{W}ay
64.	guts	sq^{W}lcnenk
65.	hair	qpqentn
66.	hand	kelx
67.	he	cneɬc
68.	head	c'ásyaq̣n
69.	hear	nexl
70.	heart	spoos
71.	heavy	nast
72.	here	alá
73.	hit	caʔ
74.	hold	ck^{W}esk^{W}st
75.	how	ckenx
76.	hunt	pex̣
77.	husband	sqltmex^{W}
78.	I	énca
79.	ice	sxoynt
80.	if	cmay
81.	in	lanexót
82.	kill	poƛ
83.	know	cmest
84.	lake	t'ek^{W}'t
85.	laugh	ʕayncót
86.	leaf	packɬ
87.	left	skc'ék^{W}a
88.	leg	sc'ox̣án
89.	lie (down)	q'el
90.	live	x^{W}alt
91.	liver	pnemk
92.	long	wesxn
93.	louse	q^{W}téx̣^{W}a
94.	man	sqltmex^{W}
95.	many	xoet
96.	meat	sɬeq^{W}
97.	mother	sq'oy
98.	mountain	mk^{W}ewt

99.	mouth	splemcn
100.	name	sk^{W}est
101.	narrow	ssák'at
102.	near	k'ék'at
103.	neck	nk'melps
104.	new	sec
105.	night	snk^{W}koac
106.	nose	sp'saqs
107.	not	lot
108.	old	k'ewlx
109.	one	naqs
110.	other	yaxés
111.	person	sqelx^{W}
112.	play	eckn
113.	pull	cak^{W}
114.	push	ermén
115.	rain	sq'et
116.	red	ca^{q}x̣
117.	right	skchekst
118.	correct	tłtałt
119.	river	satétk^{W}
120.	road	xweł
121.	root	sax^{W}ép
122.	rope	sp'ecn
123.	rotten	tak^{W}
125.	salt	lesél
126.	sand	sqpq'apénawx
127.	say	con
128.	scratch	qs
129.	sea	sélx^{W}a et'ék^{W}'t
130.	see	wek
131.	seed	c'alqn
132.	sew	łkem
133.	sharp	x^{W}ex^{W}áyt
134.	short	tt'áq'at
135.	sing	nk^{W}nem
136.	sit	mot
137.	skin	sép'e
138.	sky	st'k'masq't
139.	sleep	etx
140.	small	kok^{W}eyóma
141.	smell	qeáx^{W}
142.	smoke	spool
143.	smooth	tenér
144.	snake	skokawélxx
145.	snow	smeq^{W}t
146.	some	tawménax
147.	spit	sptex^{W}
148.	split	seq'
149.	squeeze	p'ec
150.	stab	ław
151.	stand	tełx
152.	star	skokósnt
153.	stick	sx̣ax̣c'é

154.	stone	x ƛ̓ot
155.	straight	teɬ
156.	suck	qeʔ-
157.	sun	xyaɬnxʷ
158.	swell	sakʷt
159.	swim	k'ram
160.	tail	syops
161.	that	exé
162.	there	elé
163.	they	mnemɬclx
164.	thick	pɬaɬt
165.	thin	llek
166.	think	kɬpaxám
167.	this	axá
168.	thou	ánwe
169.	three	kaɬés
170.	throw	caq'
171.	tie	ˤac
172.	tongue	texʷck
173.	tooth	ˤaytmn
174.	tree	cgep
175.	turn	axlmn
176.	two	asél
177.	vomit	wetk
178.	walk	nkxam
179.	warm	cex
180.	wash	c'eóm
181.	water	sewɬkʷ
182.	we	mnenɬtt
183.	wet	ɬat'
184.	what?	stem
185.	when?	penkén
186.	where?	lakén
187.	white	pyeq
188.	who?	swet
189.	wide	ɬaq't
190.	wife	tkɬmelxʷ
191.	wind	snewt
192.	wing	skwaxn
193.	wipe	epn
194.	with	t'-
195.	woman	tkɬmelxʷ
196.	woods	nscéco
197.	worm	mˤámla
198.	ye	mnemɬmp
199.	year	spentk
200.	yellow	kʷre
A.	breast	kɬk'mels
B.	claw	qoxqénxn
C.	full	qʷ'ect
D.	horn	qʷmqen
E.	knee	qaqénx̣n
F.	moon	xyaɬnxʷ
G.	round	yer

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List of Abbreviations

BAE	Bureau of American Ethnology
HAIL	Handbook of American Indian Languages
IJAL	International Journal of American Linguistics
Lg	Language
MIT	Massachusetts Institute of Technology
UCPL	University of California Publications in Linguistics
UMP	University of Michigan Press
VFPA	Viking Fund Publications in Anthropology

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